590.5 Biology
FI
N.S.
no.103
Dec 10, 2004
SEP 0 9 2005

FIELDIANA

Zoology

NEW SERIES, NO. 103

The Millipede Collections of the World

Petra Sierwald

Abigail Julia Reft

December 10, 2004
Publication 1532

PUBLISHED BY FIELD MUSEUM OF NATURAL HISTORY

Information for Contributors to Fieldiana

Fieldiana is a peer-reviewed monographic series published by the Field Museum. The series publishes the research of staff members and our research associates. The page charge currently is $65 per page. This figure is subject to change. All authors are encouraged to provide funding to support the production of their works.

Submission procedures: A submission procedures document is available from the scientific editor of the journal and on the Museum's web site (by 2004). Manuscripts submitted for review should be prepared using standard electronic software and submitted to the scientific editor in three photocopies. The scientific editor also requires the names, addresses, telephone numbers, and e-mail addresses of at least five suggested reviewers. All elements of the work, including the illustrations, must be completed before the manuscript is submitted. References should be styled according to a recent *Fieldiana* publication, which may also be consulted for order of elements (title page, table of contents, list of illustrations, abstract, and the like).

The decision of the scientific editor to accept or reject a work is final.

Length: As a monographic series, *Fieldiana* publishes mid-length works. We do not publish short, journal-article-length works. As a general rule, we are unable to accommodate manuscripts of less than 75–100 manuscript pages. Authors seeking an exemption for a manuscript of fewer pages should consult the scientific editor. *Fieldiana* also is unable to publish extremely long works without substantial support from the author. The publication of long works should be arranged well in advance with the scientific editor.

Please bear in mind: Changes on page proofs are very expensive. Author-generated changes on page proofs can only be made if the author agrees in advance to pay for them.

UNIVERSITY OF
ILLINOIS LIBRARY
AT URBANA-CHAMPAIGN
BIOLOGY

FIELDIANA

Zoology

NEW SERIES, NO. 103

The Millipede Collections of the World

Petra Sierwald

Department of Zoology
Field Museum of Natural History
1400 South Lake Shore Drive
Chicago, Illinois 60605-2496
U.S.A.

Abigail Julia Reft

Department of Ecology and Evolutionary Biology
University of Kansas
3002 Haworth
Lawrence, Kansas 66045
U.S.A.

Accepted March 8, 2004
Published December 10, 2004
Publication 1532

PUBLISHED BY FIELD MUSEUM OF NATURAL HISTORY

BIOLOGY LIBRARY
101 BURRILL HALL
SEP 09 2005

© 2004 Field Museum of Natural History
ISSN 0015-0754
PRINTED IN THE UNITED STATES OF AMERICA

Contents

Abstract 1

Materials and Methods 2

Format of Collection Descriptions 3

Organization of the Catalog and Accuracy of Collection Descriptions 3

Results 4

Fossil Millipede Collections 5

Technical Notes on Millipede Collections 7

Acknowledgments 8

Collection Survey 30

Literature Cited 93

Appendix: Questionnaire, Millipede Collection Survey 95

Tables

1. *Number of Institutions Housing Millipede Collections* 9
2. *Millipede Collections of the World* 10
3. *Deposition of Millipede Type Specimens* 11
4. *Alphabetical List of Collection Abbreviations* 18

The Millipede Collections of the World

Petra Sierwald **Abigail Julia Reft**

Abstract

The present catalog of millipede specimen collections of the world lists 268 biological collection institutions from 143 countries. The data in the catalog are derived from a questionnaire-based survey forwarded by standard mail and electronically to more than 1,000 biological collection institutions worldwide. For 54 countries, no millipede collections could be identified. Nine private collections are listed, though we assume these are underrepresented in this catalog. Although the catalog focuses on collections of Recent millipede material, a preliminary list of 43 collections containing fossil millipedes is included. Each listed Recent millipede collection is described using the data captured through the questionnaire, giving details on the size of the collection, type material and type authors, organization and cataloging status of the collections, and geographic coverage of the holdings. Of the 268 millipede collections, nine collections house more than 20,000 specimen lots and 77 house more than 1,000 specimen lots. The accuracy of the descriptions of these 77 collections was proofed by the respective curators in charge between July 2003 and February 2004. Type material is reported from 89 collections, with six collections harboring more than 1,000 type lots each. More than 21,400 type lots (including all type categories) were reported by the collections. The data on type material are also presented in a reference table, listing for each millipede species author all collections that reported types from this author. Important voucher material of several millipede authors is noted for the collections that house them. The collections are listed by country and for large countries also by provinces or states. For each millipede collection, the mailing address of the institution, telephone and fax numbers, and name of the curatorial staff are given, as are the correspondents' e-mail addresses.

Arthropods commonly referred to as Myriapoda comprise the classes Chilopoda (centipedes), Diplopoda (millipedes), Symphyla, and Pauropoda. The last two, Symphyla and Pauropoda, contain relatively few described species at this time—fewer than 500 each. Centipedes are estimated to comprise about 3,000 described species, which are currently classified in five orders and more than 20 families. The most species-rich group of the Myriapoda is the millipedes, with more than 10,000 described species, classified in at least 15 orders, 144 families (Shelley, 2003), and 2,950 genera. None of the four myriapod groups is comprehensively cataloged at the species level, but for millipedes, genus-level catalogs (Jeekel, 1971; Hoffman, 1980; Shelley et al., 2000) are available covering all genera described between 1758 and 1999 (see Sierwald, 2001).

Biodiversity, the variety of all life forms on our planet, has become the focal point of many public, political, and scientific discussions, often culmi-

nating in the acknowledgment of a biodiversity crisis. The current rapid loss of species is comparable to the mass extinction events in Earth's history (NSB, 1989). However, while the fact of loss is indisputable, its magnitude is uncertain: apart from a few large-bodied organisms (mainly vertebrates and seed plants), most living species remain undiscovered, not even existing as names in the scientific literature. Estimates of the planet's species richness vary widely, but up to 85% of existing species are assumed to be unknown to science (Systematics Agenda, 2000, 1994). Completing a global inventory of biodiversity (Mission I, Systematics Agenda 2000, 1994) will require the collection of some specimens of all species in the (few) places where they still thrive, a description of their characteristics, the naming of them, and the depositing of type and voucher specimens in publicly accessible biological specimen collections. Biological specimen collections play a pivotal role in this endeavor; such collections have maintained identified material of the known fauna and flora for more than two centuries, and must continue to do so. Furthermore, a good portion of the unknown flora and fauna can be found in the unsorted and unidentified backlog of specimen collections.

The European community recently recognized the lack of collection accessibility as a central impediment to all forms of biological research and established BioCASE: A Biodiversity Collection Access Service for Europe (see *http://www.biocase.org/default.shtml*). "The BioCASE project will establish a web-based information service providing researchers with unified access to biological collections in Europe . . . to enhance the over-all value of biological collections as an essential, but presently fragmented and under-exploited European research infrastructure for environmental sciences, systematics, and life sciences in general."

Such a registry of collections represents an improvement of scientific infrastructure, but significant challenges remain: specimen collections worldwide suffer from a notorious lack of resources. This is especially true for collections of invertebrates belonging to taxonomically neglected groups, with myriapods being a case in point. In contrast to vertebrate collections, which often are completely computerized and thus highly accessible, invertebrate collection holdings are rarely electronically captured. Furthermore, collections of such taxon groups reside within extensive arthropod and invertebrate collections, often cared for by a single curator or collection manager. For many taxonomically neglected organism groups, such as the Myriapoda, we do not even know where such useful specimen collections might be located. In 1972, the 2nd International Congress of Myriapodology recommended that "myriapodologists throughout the world . . . bring together the information needed for a world-list of collections in this field" (Kraus, 1974). With the present catalog of the millipede collections of the world, this recommendation is implemented more than 30 years later for one of the myriapod groups. Most collections listed here as harboring millipede collections also house specimens of the remaining three myriapod groups—centipedes, pauropods, and symphylans—and accordingly this catalog will be of use for research focusing on these groups as well.

Materials and Methods

When we began this project, in 1999, we first assembled a worldwide list of natural history museums and other biological collection institutions. Initially, the list was based on three main sources: (1) the listing of insect and spider collections of the world by Arnett et al. (1993), (2) the global listing of arachnid collections by Saunier (1980), and (3) a list of North American millipede collections provided by Dr. Rowland Shelley (unpublished). As the project progressed, Internet searches were used to locate previously unlisted institutions that might harbor arthropod collections. Address changes and contact information (names, e-mail addresses, and fax numbers for curatorial staff) were gathered through Web searches as well. During the final stages of manuscript preparation, in July 2003, curatorial staff of millipede collections with more than 1,000 reported lots (see Table 2, 74 collections) proofed and updated the description for their collections. Nearly all collections reported back to us, and all requested changes were made in the manuscript.

A questionnaire was designed to assemble baseline data on available scientific millipede collections. Decisions as to which information ought to be gathered were guided largely by the data types assembled by Saunier (1980) for arachnid collections and those presented by Arnett et al. (1993) for insect and spider collections. A copy of the questionnaire can be found in Appendix 1. The survey focused on three types of information:

(1) type lots (including all formal type categories) and associated data (especially type catalogs and species authors), (2) the general collection (size and condition), distinguishing between the formed collection (lots identified at least to family level) and the backlog (unidentified or identified to order level), and (3) the level and type of collection cataloging (from accession files on index cards to electronic databases). Data provided here for the general collection include the size of the collection (number of lots; a lot is defined as all specimens belonging to a single species collected at a single collecting event, usually the content of a "vial" in the identified [= formed] collection), the size and organization of the backlog (whether identified to order level), the physical arrangement of the collection, the preservation of specimens, and the main geographic regions covered by the collection. The final section of the questionnaire captured data on associated collections such as reprints, microscope slides, and bulk samples, as well as information on current collection growth.

Initially, about 600 questionnaires were mailed to museums and biological collection institutions around the world. As the project progressed and more biological collection institutions were contacted, the questionnaire was forwarded electronically to the curatorial staff of the collections. We also contacted numerous researchers in the fields of myriapodology and arachnology to locate previously unknown collections. Many myriapod collections come under the responsibility of arachnid curators, who supported this project through their generous assistance. The membership lists of the International Society of Arachnology (Annuaire des Arachnologistes Mondiaux) and of the Centre International de Myriapodologie in the C. I. M. Bulletin, as well as participant lists of past International Congresses of Arachnology (Chicago, USA, 1998, and Badplas, South Africa, 2001) and of the International Congresses of Myriapodology (Bialowieza, Poland, 1999, and Mtunzini, South Africa, 2002) supplied up-to-date e-mail and mailing addresses used during this project.

Format of Collection Descriptions

Most millipede collections are described in the following format:

Name of collection, Name of Museum/Institution, Address (Institutional Abbreviation, see Table 4)

Curatorial Staff: Name
Phone: Country code–area code–number
Fax: Country code–area code–number
E-mail: Address

Number of type lots (species author names; author names separated by ";". Joint authorship is designated with &). Separate type collection established? Type catalog information. General collection: total number of lots (est. or count); number of lots identified to family; number of lots in backlog (identified to order?). Preservation (specimen storage), label types (printed with laser or dot-matrix printer, typed, handwritten, other). Collection organization (alphabetical, systematic, geographic order, or other). Collection catalog: file cards, catalog books, accession records, and/or electronic catalogs (taxon or lot/specimen-based flat-file or relational database). If individual lot numbers have been assigned, this is indicated in the collection description. Geographic coverage of holdings was reported by the collections in the following more or less inclusive categories: Nearctic (western and eastern North America), Middle America (Central America, West Indies), Neotropics, Palearctic (Europe, Mediterranean/northern Africa, Asia), Oriental (India, Southeast Asia), Ethiopian (western, eastern, and southern Africa), Australia, New Zealand, Pacific Islands. Associated collections: reprint and microscope slides collections, specific voucher material, prints, slides, bulk samples. Estimated yearly collection growth.

Organization of the Catalog and Accuracy of Collection Descriptions

The listing of biological collection institutions contacted during the study with the descriptions of their millipede collections forms the main part of this work. We attempted to establish contact with more than 1,000 institutions. Despite repeated efforts, there are a number of institutions from which no response was received. These institutions are listed in the first paragraph under each country name. The biological collection institutions are organized in alphabetical order of the country. Institutions we contacted that do not currently house millipede collections are listed under each country or province, before the descriptions of millipede collections. Such information may be considered unnecessary by some users of this catalog; however, many institutions with the word "Insect" or "Arthropod" in their name could po-

tentially have millipede holdings. We obtained at least one confirmation for each of the institutions listed as lacking millipede collections, either from the curatorial staff or from a taxon specialist familiar with the institution.

The data were entered as the respondents provided them. The amount and type of data received varied to a certain degree, and thus not all collection descriptions are fully congruent. Some survey questions were not relevant to small collections, or these small collections have no designated curatorial staff overseeing the diplopod collection, resulting in less information than that obtained from larger collections. Larger collections were more likely to benefit from specifically assigned personnel. Table 1 lists countries with the number of millipede collections reported from each country. Table 2 lists millipede collections by size (based on the number of reported lots). The size of collections, as given in lot numbers, is often estimated (abbreviated as "est." in the collection descriptions) by the respondent, since most collections are not completely cataloged. For a small number of collections, actual counts are given. Table 3 contains information on the deposition of millipede type specimens. For each author describing millipede species, the abbreviations of the institutions housing the respective type specimens are listed. The information in this table was compiled from the information provided by the curators and has not been verified against the original taxonomic literature, by the curators in charge of the collections, or by us. In many collections, the type holdings are not separated from the main collection, and type catalogs exist for only a few collections. Therefore, Table 3 is almost certainly incomplete and may contain erroneous entries. Table 3 will be posted on Field Museum's MilliPEET Web site (*http://www.fmnh.org/research_collections/zoology/zoo_sites/millipeet/home.html*), and curators are encouraged to check the information and e-mail updates to the senior author. Table 4 is an alphabetical list of all collection abbreviations as they appear in this work. We tried to clear all used abbreviations with the curators in charge of the respective collection. This list is largely in concordance with the collection abbreviation list maintained on the Web site by the Bernice P. Bishop Museum (Hawaii, USA), but in some cases collections requested that a different abbreviation be used (Abbreviations for Insect and Spider Collections of the World; *http://hbs.bishopmuseum.org/codens/codens-inst.html*). Our millipede collection catalog contains a few collections not listed on the Bishop Museum Web site. We established new abbreviations for these collections after communicating with the curatorial staff. We did not establish or list abbreviations for institutions we contacted that do not currently house millipede collections and that are not listed on the Bishop Museum Web site.

Results

Millipede collections and, by extension, myriapod collections occur in a patchy distribution around the globe. Because myriapods suffer from general research neglect, vast regions of the world and many countries do not have any known collections of these organisms (Table 1). Regions without reported millipede collections typically lack natural history collections in general (compare to Arnett et al., 1993). The largest number of millipede collections are found in North America, with 113 collections (78 in the United States), and in Europe, with 90 collections (15 in the United Kingdom and 14 in Germany). Australia, South Africa, and Japan report 14, 7, and 5 collections, respectively. All other areas are underserved with regard to millipedes, especially most of Africa, Central and South America, and Asia. In some cases, millipede material from such areas can be found in some of the large myriapod collections outside the source country, as Bueno-Villegas et al. (2004) recently noted for Mexican millipede material. For this reason, the questionnaire requested data on the geographic origin of millipede material, and these data are included in each collection description.

We identified a total of 268 millipede collections (Table 4, indicated in bold) worldwide. Of these, 173 collections house between 50 and more than 20,000 lots (Table 2). In comparison, Saunier (1980) listed 140 arachnid collections worldwide. Specimen collections of the class Diplopoda are typically housed with other myriapod material, the centipedes, symphylans, and pauropods. These myriapod collections are most commonly associated with the entomology departments of their institutions. In some cases they are cared for within an invertebrate section. Large myriapod collections are typically united with arachnid collections in a section on Arachnida and Myriapoda (e.g., at the National Museum of Natural History, Washington, D.C., USA). While several myriapod collections are currently curated by a staff taxon spe-

cialist, in many collections the curatorial staff is responsible for a wide range of nonhexapod groups (sometimes even for all invertebrates). The lack of staff taxon specialists hampers the development of these collections.

Myriapod and thus millipede collections suffer worldwide from neglect due to resource shortages. Many large millipede collections have some form of accession records in catalog books; some kept species-level index card catalogs (e.g., SMF). Insofar as most millipede collections are not fully cataloged (electronically or otherwise), the data on the size of the collection are often estimated. A total of 67 collections reported some form of electronic databasing, nearly equally divided into those employing lot- or specimen-based data models (28 collections) and taxon-based efforts (26 collections; a few collections did not specify the data model). Electronic data capture is also roughly equally split into flat-file (22 collections) and relational databases (30 collections). Currently, only three collections (INHS, ISNB, and ZMUC) provide online catalogs of their holdings. Many collections report computerization in progress (e.g., among others, FMNH, MNHN, SMNK, and USNM). Such efforts are noted in each collection description.

Concern for type material is rooted in its importance for systematic research and stabilization of the classification. For that reason, many biological specimen institutions physically separate type holdings from the general collection. Thirty-eight of the 89 millipede collections harboring types have separated the types from the main collection. Because of safety concerns, type material is frequently subject to stringent limitations for the purpose of loans and shipments. Some collections require the use of costly courier services for transport of type material and subject the borrowing institution or researcher to the charges both ways (e.g., ZMUH). Such practices reduce the availability of type material and hamper the already fragile field of taxonomic research in diplopods. Because the type material of developing countries is almost exclusively housed in the older museums of the developed world, this practice discriminates against progress in millipede biodiversity studies in poorly researched regions. Type catalogs, on the other hand, support research progress and have been published by a number of collections. Recently, six type catalogs became available online (BCPM, GNM, INHS, MCZ, WAMP, and ZMUC). As listed in the present catalog, more than 21,400 millipede type lots (including all formal type categories) were reported by the collections (this includes conservative estimates for collections that reported an unknown number of type lots). Considering the estimated number of 10,000 nominal millipede species, and assuming that on average, millipede species are based on two or three type specimens, the number of reported type lots is encouraging. It indicates that the type specimens of most millipede species are safe and available in museums for future study, and demonstrates that scientific collections are successful in carrying out their most important mission.

Many millipede holdings are historic without current collection growth, and some harbor large amounts of unsorted backlog. Some substantial collections with valuable historic voucher material linger in warehouses and basements, separated from curatorial expertise. The accessibility of a significant number of millipede collections in North America and Europe is due to the efforts of two myriapodologists, Drs. Richard L. Hoffman (Virginia Museum of Natural History) and Rowland M. Shelley (North Carolina State Museum of Natural Sciences). Both lent their expertise to various collections, sorted and identified material, organized type collections, and arranged collections systematically during their visits over the past three decades. Other myriapodologists also shouldered some of the burden by caring for collections they visited in particular regions of the world.

Private millipede collections may be underrepresented in this catalog; certain private collections, some of them containing paratypes, prefer not to be listed. We are aware of the following private collections (also listed in the main part of this work): Puerto Rico, USA, Dr. Antonio Pérez-Asso; Venezuela, Caracas, Dr. Manuel González Sponga; South Korea, Chonbuk University, Dr. L-Y Lim; and Japan, Dr. Tsurusaki, Mr. Kiyoshi Ishii, Mr. Mitsuo Takano, Dr. Keizaburo Shinohara, and Prof. Dr. Yoshiaki Nishikawa. Collections held privately or at universities in the past, such as the Chamberlin and Causey collections, are now located at the USNM and the FSCA, respectively, and are listed with their current institutions.

Fossil Millipede Collections

Assembling a catalog of collections of Recent millipede specimens was the main objective of

this project; we did not specifically contact institutions likely to harbor fossil millipede material. However, Drs. G. Edgecombe (AMS), J. Dunlop (ZMB), S. I. Golovatch (IPEE), J. T. Hannibal (CLEV), O. Kraus (University of Hamburg), and W. A. Shear (Hampden-Sydney College, VA) provided us with a preliminary list of collections housing significant fossil millipede material, which is given here. It should be noted that most of these data have not been proofed by the cited collections. Fossil diplopod specimens are almost always housed in the geology or paleontology departments of institutions and not likely to be curated by the curator for Recent millipede material.

Austria, *Vienna* (NHMW, Geologisch-Paläontologische Abteilung).

Australia, *Brisbane* (Queensland Museum [QM], Jurassic millipede fossils); *Sydney* (Australian Museum [AMS], Silurian and Devonian millipedes).

Canada, *New Brunswick, Saint John* (New Brunswick Museum [NBMB], Devonian and Carboniferous forms; *http://www.gnb.ca/0130/*); *Quebec, Novelle,* Parc de Miguasha (Natural History Museum of Miguasha Park [MHNM], Devonian millipede fossils; curator: Dr. S. Desbiens).

Czech Republic, *Prague* (National Museum [NMPC], Carboniferous [Gaskohle] and Mesozoic specimens figured and described by Fritsch); *Ostrava/Moravia* (Museum of Ostrava, Pennsylvanian, Karvina material described by Susta 1928 and 1932, Pribyl 1960, and Rehor & Rehorova 1972).

France, *Montceau-les-Mines* (Musée des Fossiles, Carboniferous material); *Autun* (Musée d'Histoire Naturelle); *Strasbourg* (Université Louis Pasteur de Strasbourg, Grauvogel-Stamm Collection, Triassic millipedes).

Germany, *Berlin* (Museum für Naturkunde der Humbolt-Universität, Geologisch-Paläontologische Abteilung of the University, Koch & Berendt's types, also material from the Gaskohle [Carboniferous, Czech Republic], unidentified Bitterfeld Amber material); *Chemnitz/Sachsen* (Museum für Naturkunde, Pennsylvanian material); *Clausthal-Zellerfeld/Schleswig-Holstein* (Technische Universität, Pennsylvanian material, Prof. Dr. C. Bauckmann); *Frankfurt/Hessen* (Senckenberg Museum [SMF], Abteilung für Paläontologie und Historische Geologie, Devonian material, Størmer types); *Freiberg/Sachsen* (Geologisches Institut, Bergakademie, Permian material; *http://www.tu-freiberg.de/~geowsam/pasa/index.html*; curator: Dr. Gaitzsch); *Hamburg* (Geologisch-Paläontologisches Institut der Universität Hamburg; Wolfgang Weitschat's extensive collection of Amber inclusions); *München/Bayern* (*Munich*) (Bayrische Staatssammlung Paläontologie und historische Geologie, Pennsylvanian, Saarland specimens described by Reinhard Foerster 1973); Münster/Westfalen (Westfälisches Museum für Naturkunde—Planetarium; Pennsylvanian; *Ribnitz-Damgarten/Mecklenburg-Vorpommern* [Deutsches Bernstein Museum; *http://www.bernsteinmuseum.info/*]; *Schleusingen/Thüringen* (Naturhistorisches Museum Schloss Bertholdsburg, Carboniferous forms; *http://www.museum-schleusingen.de/frameseite.html*); *Stuttgart/BadenWürttemberg* (Staatliches Museum für Naturkunde in Stuttgart [SMNS], extensive collection of Dominican amber fossils; *http:///www.naturkundemuseum-bw.de/*). Private collections: M. Thiele-Bourcier, Kirkel-Neuhäusel (Pennsylvanian, Saarland); J. Wunderlich, Straubenhardt (Amber).

Hungary, *Budapest* (Geological Institute of Hungary, Cenozoic material; *http://www.mafi.hu/*).

Poland, *Warsaw* (Muzeum Ziemi, Museum of the Earth, Polish Academy of Sciences, houses amber fossil millipedes [J. Wytwer in litt.] and may house types of amber fossil millipede species described by Dzik; *http://www.hermuz.hu/engweb/nws/amber1.htm*).

Russia, *Moscow* (Laboratory of Arthropods, Palaeontological Institute of the Russian Academy of Sciences in Moscow [PIN], types of fossil millipede species described by Martynov; *http://www.palaeoentomolog.ru/english.html*).

United Kingdom, *Aberdeen* (University of Aberdeen, Department of Geology, Paleozoic forms); *Birmingham* (Lapworth Museum of Geology, University of Birmingham, Carboniferous forms); *Belfast* (Ulster Museum, Silurian material, Shear & Selden types); *Edinburgh* (National Museum of Scotland [NMS], Section for Invertebrate Palaeontology, various Paleozoic material; curator: Dr. Lyall I. Anderson); *Glasgow* (Hunterian Museum, Carboniferous forms); *Keyworth,* Nottingham (Biostratigraphy Museum of the British Geological Survey; Carboniferous material and younger, including some type, figured and cited material, data courtesy Dr. Mike Howe, chief curator); *London* (The Natural History Museum [BMNH], Cockerell's types, millipedes from

East African Rift Valley hominid sites, and other material); *Manchester* (Manchester Museum [MMUE], Horrocks Collection from the Upper Carboniferous of Bickershaw Colliery, Lancashire); *Manchester* (Earth Sciences Department, Manchester University, Dr. Paul Selden).

United States, *Connecticut, New Haven* (Peabody Museum of Natural History, Yale University, Pennsylvanian, Mazon Creek material); *Illinois, Chicago* (Field Museum of Natural History [FMNH, Department of Geology], large collection of Mazon Creek millipedes [Mississippian and Pennsylvanian, *Euphoberiida, Oniscomorpha,* etc.]; collection manager: Charlene Fricker); *Illinois, Rockford* (Burpee Museum, Pennsylvanian, Mazon Creek millipedes); *Illinois, Springfield* (Illinois State Museum, Pennsylvanian, Mazon Creek millipedes); *Illinois, Urbana–Champaign* (University of Illinois at Urbana–Champaign, Pennsylvanian, Mazon Creek specimens); *Kansas, Lawrence* (Division of Paleontology, University of Kansas Museum of Natural History, Carboniferous forms, curator: Dr. Roger Kaesler; collection manager: Alice Hart); *Massachusetts, Cambridge* (Harvard Museum of Comparative Zoology [MCZ], Department of Invertebrate Paleontology); *New Mexico, Albuquerque* (New Mexico Museum of Natural History and Science, Carboniferous millipedes from Kinney Quarry and Carrizo Arroyo, *http://museums.state.nm.us/nmmnh/nmmnh.html*); *New York, New York* (American Museum of Natural History, Devonian material [Wilson & Shear types], amber specimens); *Ohio, Cleveland* (Cleveland Museum [CLEV] few specimens, some type and figured material); *Pennsylvania, Pittsburgh* (Carnegie Museum of Natural History, Section of Invertebrate Paleontology; Carboniferous forms); *Washington, D.C.* (National Museum of Natural History [USNM], Department of Paleobiology, extensive fossil material, Devonian [Kjellesvig-Waering types] and Mesozoic, Scudder types, amber specimens).

Technical Notes on Millipede Collections

Specimen preservation.—Some historic millipede collections contain dried, pinned specimens. Most collections use straight ethanol (70%–80%). We (FMNH) found reduced alcohol concentration (below 65%) in jars containing large-bodied specimens and increased the concentration during top-off maintenance. Ethanol is denatured in some collections (methyl-ethyl-ketone, MEK [SMNG, MHNG]; industrial methylated spirits, IMS [BMNH, CUMZ, HMUG, IPSM, NMWC]). Isopropanol is used in several collections (e.g., by FSCA). Mesibov (QVMAG) reported degradation (whitish patches on integument) of polydesmid specimens in isopropanol. After changing the collection to 75% to 80% ethanol, no further degradation was observed. In some collections, glycerin is added (UVCC, SMNK) to keep the specimens moist in case the ethanol evaporates. Dr. R. M. Shelley does not recommend adding glycerin, because specimens have to be cleaned before examinations. Preserved millipedes harden considerably; often the animals are rolled up into a spiral (or ball, in the case of volvating groups). Preserved in such a position, examination of the gonopods (in all helminthomorph groups) and of the mouth parts is very difficult. For species-level determination, it is necessary to break the animals apart. Consequently, millipedes in collections are rarely intact. Posterior body rings especially are often found loose in the vials.

Preservation of live-collected specimens.—Hoffman (in litt.) explained that the anterior body sections of millipedes preserve soon after the animals are placed in alcohol because the alcohol enters the body through the mouth opening and around the gonopods. The anterior muscles harden considerably, while the posterior end of the body is not preserved fast enough, causing the posterior rings to become loose and detach from the body. When starting off with living animals, Hoffman recommends killing them with ethyl acetate (in a jar containing a soaked paper towel). This causes the exoskeleton to soften and the segments to spread apart because of internally generated CO_2. After the desired degree of expansion occurs, transfer into 70% alcohol is required. Millipedes preserved in this way remain straight and soft and can be handled freely without damage to legs and antennae. Whether or not ethyl acetate is used to kill and expand specimens, it is mandatory that the middle and posterior thirds of the body of large specimens be injected with 80% alcohol, using a fine hypodermic needle, between several segments, to ensure adequate internal fixation.

Dissection.—Species-level determination usually requires the examination of gonopods, which

are dissected off the animals. Gonopods were often mounted permanently on microscope slides, and slides were stored separately from the specimens. Several collections listed here maintain separate microscope slide collections. Such separate collections require special record keeping of specimens and slides. More recently, many collections store dissected gonopods in genitalia vials with their original specimens.

Specimen storage.—The majority of collections store specimens in glass vials with cotton plugs or plastic stoppers. The vials are kept in ethanol-filled glass jars, facilitating regular ethanol top-off maintenance. Some collections store specimens in screw-cap vials or neoprene-stopped patent-lip vials. The vials are then stored in boxes or various racks.

Specimen labels.—Most millipede collections use handwritten (pencil or India ink) and typed (alcohol-proof ribbon) collection labels; laser-printed labels are rarely used because most collections did not receive recent attention or added significant amount of material after laser printers became available. As others have also reported, we (FMNH) found that laser-printed labels are not safe for extended time periods (e.g., letters fall off the label paper). Currently, we use a Lexmark ink-jet printer with alcohol-proof ink for label production.

Arrangement of collection.—Most collections are arranged by order, with families (and genera within families) in alphabetical order.

Associated collections.—Some collections contain extensive unsorted soil bulk samples (Berlese, pitfall traps). Such sample and residue collections will contain large amounts of myriapod material (besides other soil arthropods). The existence of such sample material is listed in each collection description if we were made aware of them.

Acknowledgments. Gordon Nishida (Bishop Museum, Hawaii) provided us with an electronic copy of the address list used in Arnett et al. (1993), *Insect and Spider Collections of the World.* Dr. Rowland Shelley (North Carolina Museum of Natural Sciences) furnished us with an extensive list of North American millipede collections, most of which he visited personally. Several colleagues assisted by providing data for specific countries: Julian Bueno-Villegas for Mexican collections, T. Cekalovich for Chilean collections, Dr. Golovatch for collections in Russia and other former Soviet republics, and Dr. Jana Tufova (e-mail: tufova@prfnw.upol.cz) for collections in the Czech Republic.

Drs. Shelley, Hoffman, Shear, Enghoff, and Golovatch helped assemble the table of millipede species authors. We are deeply indebted to all dedicated curatorial staff, who collaborated with us generously, made special trips to visit collections outside their institutions, and safeguard the world's collections of biodiversity. James Louderman assisted in assembling the tables. Drs. J. Dunlop, P. Jäger, V. Stagl, and S. I. Golovatch provided helpful comments during the preparation of the manuscript. We gratefully acknowledge Drs. J. Dunlop, S. I. Golovatch, and O. Kraus, and anonymous reviewers for many helpful comments on previous drafts of the manuscript, which was ably shepherded through the review process by Dr. William Burger. This project was supported in full by a National Science Foundation grant in the PEET program (DEB 97-12438) to Petra Sierwald and William A. Shear (Hampden-Sydney, Virginia) and by the Field Museum of Natural History.

TABLE 1. Number of Institutions Housing Millipede Collections, by Country and Region

Africa (Includes Southwest Asia)		Asia		Australia and Oceania		North America (Includes Central America and the Caribbean)		South America		Europe	
Kenya	1	China	3*	Australia	14	Bermuda	1	Argentina	5	Austria	4
Namibia	1	India	1	Fiji	0	Canada	12	Bolivia	1	Belarus	1
Seychelles	1	Japan	5	New Caledonia	0	Costa Rica	2	Brazil	6	Belgium	2
South Africa	7	Korea	?	New Zealand	7	Cuba	1	Chile	1	Bulgaria	1
Zimbabwe	1	Singapore	1			Dominican Republic	0	Colombia	1	Croatia	1
Israel	1	Taiwan	2			Guatemala	1	Paraguay	1	Czech Republic	3
Lebanon	1*	Thailand	0			Jamaica	1	Peru	1	Denmark	2
						Mexico	4	Suriname	1	Finland	1
						Nicaragua	0	Uruguay	1	France	2
						Panama	1			Germany	14
						United States	78			Greece	1
						Puerto Rico	2			Hungary	1
										Iceland	1
										Italy	11
										Luxembourg	1
										Netherlands	3
										Norway	2
										Poland	2
										Portugal	2
										Romania	0
										Russia	5
										Slovakia	1
										Slovenia	1
										Spain	4
										Sweden	4
										Switzerland	4
										United Kingdom	15
Total	**13**		**12**		**21**		**113**		**17**		**90**

Note: Some of these collections are very small. Countries are listed as having no collections here only if a colleague confirmed that there were no collections in that country.

* Includes a teaching collection.

TABLE 2. Millipede Collections of the World: Size of Collections

Collection Size	Collections	No. of Collections
>20,000 lots	FSCA, GNM, ITMM, IZCAS, MNHN, NSMT, USNM, VMNH, ZMMU	9
10,000–20,000 lots	AMNH, CAS, MFS, MHNG, MRAC, NHMW, SMNG, SMNK, ZMAN, ZMB, ZMUC	11
5,000–10,000 lots	ARPA, BMNH, FMNH, HNHM, MCZ, MVNH, MZUL, NCSM, NZAC, QVMAG, RMNH, SMF, ZSMC	13
1,000–5,000 lots	AMNZ, AMS, ANIC, BFIC, CIDA, CLSHU, CMNH, CMNZ, IEXA, INBC, INHS, LACM, MBCG, MNHC, MNMS, MRSN, MSNM, MUSM, MZHF, MZUF, NDSU, NHMA, NMBA, NMPC, NMSA, NTPC, OUMNH, PMSL, QM, SAMC, SEMC, SOFM, UCDC, UNAM, UWBM, UWCP, VUA, WAMP, WSU, WVUC, ZIN, ZMUH, ZMUN, ZSI	44
500–1,000 lots	CMNI, HZMZ, ICNUN, IMLA, IZNASB, MNRJ, MONZ, MPEG, MVMA, MZLU, NMBZ, NMNW, PMNH, SNMC, TMSA, TKPM, UMSP, UNIPD, ZUMA, ZMUB	20
100–500 lots	BCPM, BMSA, BNM, BPBM, BYU, CBFC, CSCA, CUMZ, DEBU, DENH, EIUC, EMEC, IBSV, INBP, INPA, PEE, IRCW, ISUI, IZUI, MCNZ, MCPM, MCSN, MEMU, MGDL, MIUP, MLPA, MLUH, MMBC, MCSNVR, MTEC, MZCR, MZLS, MZSP, NCHU, NCMK, NHMK, NHMWC, NHRI, OLML, OSEC, ROME, SAM, SDMC, SMTD, SZMN, TMMC, UCMS, UGCA, ULKY, UMB, UMMZ, UMRM, UQIC, UVCC, UVGC, UZIU, VDAM, ZMUG, ZRC	58
50–100 lots	AMGS, CNC, CSUC, CUCC, EMAU, FCE, HMUG, IICT, IJSM, IPSM, LSAM, LUNZ, MAMU, MNSL, SBMN, TTCC, UADE, UCMC, WINC, ZFMK, ZMUZ	21
Size unknown, collection contains types	ANSP, ISNB, MCNV, MFS, MZPW, MZUMRE, NHRS, PRRP, UABS, UFMI	10

TABLE 3. Deposition of Millipede Type Specimens

Millipede Species Author	Museum Housing Type Specimens
Abrous-Kherbouch & Mauriès	MNHN
Absolon & Lang	
Am Stein	BNM
Attems	BMNH, GNM, ISNB, MCZ, MFS, MNHN, MRAC, MZLU, NHRS, NMBA, NMSA, NHMW, RMNH, SAMC, SMF, USNM, VMNH, WAMP, ZMAN, ZMB, ZMUH, ZSMC
Beauvois	MNHN, ZIN
Berlese	BMNH, MFS, MNHN, ZMB
Bigler	BMN, NMBA
Blower	BMNH
Blower & Rolfe	
Blower & Rundle	VMNH
Bollman	ANSP, BMNH, USNM
Borre	MNHN
Bosc	Lost (fide Jean-Paul Mauriès [MNHN])
Bouvier	MNHN
Brade-Birks	BMNH
Brandt	RMNH, USNM, ZIN, ZMB
Brolemann	AMS, BMNH, MFS, MNHN, MSNM, MZSP, MZUF, NHMW, USNM, ZSMC
Brolemann & Brade-Birks	MNHN
Brolemann & Verhoeff	MNHN
Buckett & Gardner	MHNG, UCDC, VMNH
Butler	
Carl	FSCA, HNHM, ISNB, MHNG, MNMS, NHMW, NMBA, SMF, VMNH, ZMB, ZMUC, ZMUH
Causey	AMNH, ANSP, BMNH, CAS, FSCA, INHS, MCZ, USNM, VMNH
Causey & Tiemann	FSCA
Ceuca	MZUF, SMF
Chamberlin	AMNH, ANSP, BCPM, BMNH, CAS, EMEC, FMNH, FSCA, INBC, MFS, MCZ, MHNG, SMF, UNAM, USNM, VMNH, ZMUC
Chamberlin & Hoffman	SMF, USNM
Chamberlin & Mulaik	USNM
Chamberlin & Wang	AMNH, USNM
Condé	CMNZ, MHNG
Condé & Demange	MNHN
Condé & Nguyen Duy-Jacquemin	Museum of Nancy (fide Monique Nguyen Duy-Jacquemin [MNHN])

Note: This table lists all authors currently known to us who have described millipede species. The type specimens of the species they described can be found in the museums and collections indicated by their institutions' abbreviations. This list is certainly not complete. The data were assembled from the responses we received. The original taxonomic literature was not consulted. In some cases, the listed institutions may not actually house the type material of the author but rather voucher material. Respondents did not always distinguish between types and voucher material.

TABLE 3. *Continued*

Millipede Species Author	Museum Housing Type Specimens
Condé & Terver	Museum of Nancy (fide Monique Nguyen Duy-Jacquemin [MNHN])
Cook	ANSP, FSCA, MFS, SMF, USNM, VMNH, ZMB, ZMUH
Cook & Collins	USNM
Cook & Loomis	FSCA, MCZ, MHNG, USNM, VMNH
Cope	ANSP, USNM
Curtis	
Daday	HNHM, MFS, Heidelberg (Germany)
Dalla Torre	
Demange	BMNH, GNM, MNHN, MRAC, MZLU, NMBA, RMNH, SMF, USNM, ZMUC, ZMUH
Demange & Mauriès	MNHN, MRAC
DeSaussure	MHNG, ZMB
DeSaussure & Humbert	BMNH, MHNG, ZMUH
DeSaussure & Zehntner	MNHG, ZMB
Desjardins	Lost (fide Jean-Paul Mauriès [MNHN])
Drury	
Eichwald	ZIN
Enghoff	BMNH, CAS, CUMZ, FSCA, GNM, MBCG, MCZ, MHNG, MZLU, MZPW, MZUL, NHMW, NHRS, NMBA, SMF, SOFM, TKPM, VMNH, ZIN, ZMAN, ZMMU, ZMUC, ZMUH
Enghoff & Golovatch	AMNH, BMNH, ZIN
Erichson	ZMB
Eschscholtz	
Fabricius	BMNH
Faës	MZLS, ZMUZ
Fanzago	MFS, UNIPD
Fedrizzi	MFS, UNIPD
Gardner	UCDC
Gardner & Casey	UCDC
Gardner & Shelley	UCDC
Gerstäcker	ANSP, ZMB, ZMUH
Gerstfeldt	ZIN
Gervais	BMNH, FMNH, MNHN, ZIN
Gervais & Goudot	MNHN
Girard	USNM
Golovatch	BMNH, GNM, IBSV, INPA, MHNG, MZSP, MZUL, NHMW, NMBA, NSMT, SMF, SOFM, TAU, VMNH, ZIN, ZMAN, ZMMU, ZMUC, ZMUH, ZSMC
Golovatch & Enghoff	BMNH, ZIN, ZMUC
Golovatch & Korsòs	HNHM, ZIN
Golovatch & Mikhaljova	IBSV, ZIN, ZSMC

TABLE 3. *Continued*

Millipede Species Author	Museum Housing Type Specimens
Golovatch & Sierwald	FMNH
Golovatch, Vohland, & Hoffman	FMNH, MPEG, MUSM
Golovatch & Wytwer	MZPW, TAU
Gray	
Gressitt	CAS
Haase	RMNH
Haga	NSMT
Harger	
Heller	
Hewitt	AMGS
Hoffman	AMNH, ANSP, BMNH, BPBM, CAS, CUMZ, FMNH, FSCA, INBP, INPA, MCZ, MHNG, MRAC, MZSP, NHMW, NMBA, NMBZ, RMNH, SMF, SOFM, UFMI, USNM, VMNH, WAMP, ZMMU, ZMUC, ZMUH, ZSMC
Hoffman & Burkhalter	CAS, VMNH
Hoffman & Flores	VMNH
Hoffman & Howell	FSCA, MRAC, VMNH, ZMUC, ZMUH
Hoffman & Knight	VMNH
Hoffman & Lohmander	VMNH, ZMUH
Hoffman & Mahsberg	VMNH
Hoffman & Orcutt	USNM, VMNH
Holloway	MONZ
Humbert	MHNG
Humbert & DeSaussure	MHNG, MNHN, NHMW
Humphreys & Shear	WAMP (Fide William Shear [Hampden-Sydney College])
Hutton	CMNZ
Ishii	NSMT
Ishii & Choi	Dokkyo University School of Medicine, Japan (fide Tsutomu Tanabe [TKPM])
Jacot	MCZ
Jawlowski	
Jedryczkowski	MZPW
Jeekel	BMNH, MNHN, NHRS, RMNH, ZMAN, ZMUC
Jocqué	MRAC
Johns	AMS, CMNZ, MFS, MONZ, NHMW, NZAC, USNM, VMNH
Johnson	
Karsch	BMNH, MFS, NHMW, USNM, ZMB, ZMUH
Keeton	AMNH, MCZ, USNM, VMNH
Kenyon	USNM
Kincaid	UWBM
Koch, C. L.	BMNH, ZIN, ZMB, ZMUZ, ZSMC

TABLE 3. *Continued*

Millipede Species Author	Museum Housing Type Specimens
Koch, L.	BMNH, NHMW, ZMB, ZMUH, ZSMC
Korsòs	HNHM, NSMT
Korsòs & Golovatch	HNHM
Korsòs & Read	HNHM
Krabbe	ZMUC, ZMUH
Krabbe & Enghoff	VMNH, ZMUC, ZMUH
Kraepelin	ZMUH
Kraus	BMNH, IMLA, MRAC, NHMW, NHRS, NMSA, SMF, USNM, UMB
Lang	
Latreille	BMNH
Latzel	FSCA, GNM, MCZ, MFS, MNHN, NHMW, ZMB, ZMUH
Lawrence	BMNH, MZLU, NMSA, TMSA
Leach	BMNH, MFS, ZMB
LeGuillou	Lost (fide Jean-Paul Mauriès [MNHN])
Lignau	ZIN, ZMB
Lim	
Lim & Mikhaljova	
Linnaeus	BMNH, UZIU
Lohmander	BMNH, GNM, NMBA, ZIN, ZMB
Loksa	HNHM, SMF
Loksina & Golovatch	ZIN
Loomis	BMNH, FMNH, FSCA, MCZ, MFS, MHNG, USNM, VMNH
Loomis & Davenport	USNM, VMNH
Loomis & Hoffman	USNM, VMNH
Loomis & Schmitt	FSCA
Lucas	BMNH, MFS, MNHN
Manfredi	MSNM
Marquet & Condé	Museum of Nancy (fide Nguyen Duy-Jacquemin [MNHN])
Mauriès	BMNH, CMNZ, FMNH, GNM, MHNG, MNHN, MRAC, MZLU, NHMW, QM, SMF, SOFM, ZMMU, ZMUC, ZMUH
Mauriès & Barraqueta	MNHN
Mauriès & Enghoff	MNHN, MZPW
Mauriès, Golovatch, & Stoev	MNHN, SOFM
Mauriès & Gonzalez	MNHN (fide Jean-Paul Mauriès [MNHN])
Mauriès & Heymer	MNHN, SOFM
Mauriès & Karamaouna	MNHN
Mauriès & Maurin	MNHN
Mauriès & Nguyen Duy-Jacquemin	MNHN
Mauriès & Silva	MNHN
Mauriès & Vicente	MNHN

TABLE 3. *Continued*

Millipede Species Author	Museum Housing Type Specimens
McNeill	SMF, USNM
Meinert	BMNH, MFS, SMF, ZMUC
Menge	ZMB
Mikhaljova	IBSV, NHMW, ZIN, ZMMU
Mikhaljova & Kim	SOFM
Mikhaljova & Lim	
Minelli	BMNH
Miyosi	NSMT, Osaka Museum of Natural History, Japan; all types of species described before World War II destroyed in 1945 (fide Tsutomu Tanabe [TKPM])
Mršić	PMSL
Murakami	NSMT
Murakami & Irie	NSMT (fide Tsutomu Tanbe [TKPM])
Murakami & Kawasawa	
Murakami & Paik	NSMT (fide Tsutomu Tanabe [TKPM])
Muralewicz	ZMMU
Murray	UCDC
Nemec	MFS
Newport	MFS
Nguyen Duy-Jacquemin	BMNH, MNHN
Nguyen Duy-Jacquemin & Condé	ZMUC
Olivier	BMNH
Packard	BMNH, MCZ
Packard & Ryder	
Palmèn	MZHF
Pérez-Asso	MCZ, MNHC
Perty	BMNH
Peters	BMNH, MFS, MHNG, ZMB, ZMUH
Pierce	USNM
Pierrard	MNHN in part; personal collection in Belgium (fide Jean-Paul Mauriès [MHNH])
Pocock	BMNH, INHS, MCSN, MFS, MNHN, MRSN, MZUF, USNM, ZMAN, ZMUH
Porat	GNM, ISNB, MFS, NHRS, NHMW, UZIU
Rafinesque	ZIN
Read	BMNH, GNM, NHMW, ZMUC, ZMUH
Ribaut	MFS, MNHN, NHMW, SMF, ZMB
Risso	
Rosicky	
Rothenbühler	MHNG, MZLS, ZMB, personal collection lost (Pedroli-Christen, 1993)
Ryder	USNM

TABLE 3. *Continued*

Millipede Species Author	Museum Housing Type Specimens
Sager	
Say	BMNH, ZIN
Schiotz	ZMUC
Schubart	BMNH, MLPA, MNHN, MNRJ, MZLU, MZSP, NHMW, ZMB, ZMUC, ZMUH, ZSMC
Shear	AMNH, AMS, BMNH, BPBM, CAS, HNHM, MCZ, MHNG, SMF, SOFM, TKPM, VMNH, WAMP, ZMMU
Shear & Mesibov	AMS, QM, QVMAG, WAMP
Shear & Peck	USNM (fide William Shear [Hampden-Sydney College])
Shear & Tanabe	NSMT, TKPM, VMNH (fide Tsutomu Tanabe [TKPM])
Shear & Tsurusaki	NSMT, VMNH (fide Tsutomu Tanabe [TKPM])
Shear, Tsurusaki, & Tanabe	NSMT, VMNH
Shelley	BCPM, BMNH, CAS, FMNH, FSCA, MCZ, MHNG, NCSM, UCDC, USNM, UWBM, VMNH, WSU, ZMMU
Shelley & Bauer	UCDC, VMNH, WSU
Shelley & Crawford	NMNW, VMNH
Shinohara	NSMT
Silvestri	AMNH, BMNH, CUMZ, HNHM, ISNB, MCSN, MFS, MHNG, MRSN, MZUF, NHMW, NHRS, PMNH, SMF, USNM, ZMB, ZMUC, ZMUG, ZMUH
Sinclair	CUMZ, MFS
Spelda	ZMUH
Strasser	MCNV, MHNG, MNHN, MZUL, MZUMRE, NHMW, SMF, SOFM, ZMB, ZSMC
Stoev	SOFM
Stuxberg	GNM, NHRS
Tabacaru	NHMW
Tabacaru & Negrea	MZPW
Takakuwa	BMNH
Takakuwa & Miyosi	IMLA
Takashima & Haga	NSMT (fide Tsutomu Tanabe [TKPM])
Tanabe, Ishii, & Yin	Shanghai Institute of Entomology, Academia Sinica, Shanghai, China (fide Tsutomu Tanabe [TKPM])
Tanabe	BMNH, NSMT, TKPM
Tanabe & Shinohara	TKPM
Thaler	BMNH
Tömösváry	HNHM, MFS
Turk	BMNH
Vachon	MNHN (fide Jean-Paul Mauriès [MNHN])
Van den Spiegel	MRAC
Van den Spiegel & Hoffman	MRAC
Vélez	PRRP

TABLE 3. *Continued*

Millipede Species Author	Museum Housing Type Specimens
Verhoeff	AMS, BMNH, GNM, MFS, MHNG, MZLU, NHMW, NHRS, NMSA, SMF, SOFM, USNM, ZIN, ZMB, ZMMU, ZMUH, ZSMC
Victor	Lost (fide Jean-Paul Muriès [MNHN])
Villers	Lost (fide Jean-Paul Muriès [MNHN])
Vicente	MNHN and Barcelona (fide Jean-Paul Mauriès [MNHN])
Vicente & Mauriès	MNHN
Voges	ZMUH
Waga	ZIN
Wang, D.	IZCAS
Wang, Y. M.	
Wang, Y. M., & Tang, M. C.	ZRC
Williams & Hefner	INHS, VMNH, ZSMC
Wood	ANSP, FSCA, NHMW, UCDC, USNM
Zhang	IZCAS
Zhang & Li	IZCAS

TABLE 4. Alphabetical List of Collection Abbreviations, with Country and Name of Collection

Abbreviation	T	Name of Collection, Preceded by Country Namez
ABS		USA, Florida, Lake Placid, Archbold Biological Station
ACNB		Canada, New Brunswick, Fredericton, Agriculture Canada Research Station
AEIC		USA, Florida, Gainesville, American Entomological Institute
AGRL		Canada, Alberta, Lethbridge, Lethbridge Research Station
AHBC		USA, Utah, St. George, Dixie College
AMGS	T	South Africa, Cape Province, Grahamstown, Albany Museum
AMNH	T	USA, New York, New York, American Museum of Natural History
AMNZ		New Zealand, Auckland, Auckland War Memorial Museum, formerly the Auckland Institute and Museum
AMS	T	Australia, New South Wales, Sydney, Australian Museum
ANIC		Australia, Australian Capital Territory, Canberra City, CSIRO, Australian National Insect Collection
ANSP	T	USA, Pennsylvania, Philadelphia, Academy of Natural Sciences
APEI		Canada, Prince Edward Island, Charlottetown, Agriculture Canada Research Station
APHI		USA, Maryland, Baltimore, U.S. Department of Agriculture, Animal and Plant Health Inspection Service
ARPA		Private collection of Dr. Antonio Pérez-Asso
ASAY		Armenia, Yerevan, Academy of Sciences of Armenia
ASCU		Australia, New South Wales, Orange, Orange Agricultural Institute, Agricultural Scientific Collections Unit
ASUT		USA, Arizona, Tempe, Arizona State University, Frank M. Hasbrouck Insect Collection
AUBL		Lebanon, Beirut, American University of Beirut, Museum of Natural History
AUEM		USA, Alabama, Auburn, Auburn University
BAMZ		Bermuda, Hamilton, Bermuda Natural History Museum and Aquarium
BCPM	T	Canada, British Columbia, Victoria, Royal British Columbia Museum (British Columbia Provincial Museum)
BDWC		Canada, Ontario, Windsor, University of Windsor
BENHS		United Kingdom, London, British Entomological and Natural History Society
BFIC		France, Brunoy, Muséum National d'Histoire Naturelle
BFW		Austria, Wien, Bundesamt und Forschungszentrum für Wald
BIDA		USA, Idaho, Boise, Boise State University
BMBN		United Kingdom, Brighton, Booth Museum of Natural History
BMGB		Barbados, St. Ann's Garrison, Barbados Museum and Historical Society
BMNH	T	United Kingdom, London, The Natural History Museum, formerly British Museum Natural History
BMSA		South Africa, Bloemfontein, National Museum Bloemfontein
BMSC		USA, New York, Buffalo, Buffalo Museum of Science
BMUK		United Kingdom, Bolton, Bolton Museum
BNHS		India, Maharashtra, Bombay, Bombay Natural History Society

Note: This list was based originally on the coden list given in Arnett et al. (1993). See http://hbs.bisphopmuseum.org/codens/codens-inst.html for the complete and updated list of the Insect and Spider Collections in the World. Normal type: no millipede collection. **Bold:** Collections housing millipedes; T indicates collections housing type specimens.

TABLE 4. *Continued*

Abbreviation	T	Name of Collection, Preceded by Country Name
BNM	T	Switzerland, Chur, Bündner Natur-Museum
BPBM	T	USA, Hawaii, Honolulu, Bernice P. Bishop Museum
BYU		USA, Utah, Provo, Brigham Young University, Monte L. Bean Life Science Museum
CAES		USA, Connecticut, New Haven, Connecticut Agriculture Experiment Station
CARE		Trinidad and Tobago, Port of Spain, Caribbean Epidemiology Centre
CARS		Surinam, Paramaribo, University of Surinam, Center for Agricultural Research
CAS	T	USA, California, San Francisco, California Academy of Sciences
CASM		USA, Illinois, Chicago, Chicago Academy of Sciences, Peggy Notebaert Nature Museum, formerly Museum of Natural History
CBFC		Bolivia, La Paz, Colección Boliviana de Fauna
CBMJ		Japan, Chiba, Chiba Prefectural Museum
CCCZ		Malawi, Zomba, University of Malawi
CENA		Nicaragua, Managua, Centro Nacional de Protección Vegetal
CENG		Nicaragua, Nueva Guinea, Zelaya, Centro Experimental de Nueva Guinea
CEST		Trinidad and Tobago, Centeno, Central Experiment Station
CFUA		Chile, Valdivia, Universidad Austral de Chile
CIBN		México, La Paz, Colección de Aracnología y Entomología del CIB (Centro de Investigaciones Biológicas), Centro de Investigaciones del Noroeste
CIDA		USA, Idaho, Caldwell, Albertson College, Museum of Natural History
CISM		USA, Michigan, Bloomfield Hills, Cranbrook Institute of Science
CLEV		USA, Ohio, Cleveland, Cleveland Museum of Natural History
CLMP		Australia, Western Australia, Como, Department of Conservation and Land Management
CLNP		USA, Oregon, Crater Lake, Crater Lake National Park
CLSHU		China, Baoding, Hebei, College of the Life Sciences, Hebei University
CMBK		United Kingdom, Bristol, The City Museum and Art Gallery
CMNH		USA, Pennsylvania, Pittsburgh, Carnegie Museum of Natural History
CMNI		Canada, Ottawa, Canadian Museum of Nature, General Invertebrate Collection
CMNZ	T	New Zealand, Christchurch, Canterbury Museum
CMSC		USA, Tennessee, Nashville, Adventure Science Center, formerly the Cumberland Museum and Science Center
CMUR		United Kingdom, Reading, Cole Museum, Division of Zoology, School of Animal and Microbial Sciences, University of Reading
CNC		Canada, Ontario, Ottawa, Canadian National Collection of Insects
CNHS		United Kingdom, South Croydon, Croydon Natural History and Scientific Society
CNMC		USA, Colorado, Fruita, Colorado National Monument
COLST		USA, Georgia, Columbus, Columbus State University
CRICYT		Argentina, Mendoza, Centro Regional de Investigaciones Científicas y Técnicas
CSCA		USA, California, Sacramento, California State Collection of Arthropods
CSDS		USA, California, Baker, Desert Studies Center
CSLB		USA, California, Long Beach, California State University at Long Beach
CSUC		USA, Colorado, Fort Collins, Colorado State University
CUCC		USA, South Carolina, Clemson, Clemson University

TABLE 4. *Continued*

Abbreviation	T	Name of Collection, Preceded by Country Name
CUIC		USA, New York, Ithaca, Cornell University
CUMZ	T	United Kingdom, Cambridge, University Museum
DAFH		Hong Kong, New Territories, Sheung Shui, Department of Agriculture and Fisheries
DEBU		Canada, Ontario, Guelph, University of Guelph
DEI		Germany, Eberswalde Finow, Deutsches Entomologisches Institut
DENH		USA, New Hampshire, Durham, University of New Hampshire
DFEC		USA, New York, Syracuse, State University of New York
DFRU		Canada, New Brunswick, Fredericton, University of New Brunswick
DMNH		USA, Ohio, Dayton, Boonshoft Museum of Discovery, formerly Dayton Museum of Natural History
DMSA		South Africa, Kwazulu-Natal, Durban, Durban Natural Science Museum
DNHC		USA, Colorado, Denver, Denver Museum of Natural History
DORC		United Kingdom, Dorchester, Dorset County Museum
DVNM		USA, California, Death Valley, Death Valley National Monument
DZUP		Brazil, Paraná, Curitiba, Universidade Federal do Paraná, Museu de Entomologia Pe. Jesus Santiago Moure
EAPZ		Honduras, Tegucigalpa, Escuela Agricola Panamericana
EBDS		Spain, Sevilla, Estación Biológica de Doñana
ECOL		Belgium, Louvain-la-Neuve, Collection du Laboratoire d'Ecologie
EDNC		USA, North Carolina, Raleigh, North Carolina Department of Agriculture
EELM		Peru, Lima, Estación Experimental Agricola de la Molina
EGNP		USA, Florida, Homestead, Everglades National Park
EIHU		Japan, Hokkaido, Sapporo, Hokkaido University
EIUC		USA, Illinois, Charleston, Eastern Illinois University
ELMF		USA, Maine, Augusta, Maine Forest Service
EMAU		Germany, Greifswald, Ernst-Moritz-Arndt-Universität Greifswald
EMBT		Thailand, Bangkok, Department of Agriculture
EMEC	T	USA, California, Berkeley, University of California, Essig Museum of Entomology
ESEC		Egypt, Cairo, Entomological Society of Egypt
ESUG		USA, Guam, Mangilao, University of Guam
ESUW		USA, Wyoming, Laramie, University of Wyoming
ETHZ		Switzerland, Zürich, Erdgenössische Technische Hochschule-Zentrum
FAMU		USA, Florida, Tallahassee, Florida A&M University
FACS		China, Fujian, Shaxian, Fujian Agricultural College
FCDA		USA, California, Fresno, Fresno County Department of Agriculture
FCE		Uruguay, Montevideo, Facultad de Ciencias
FCNI		Australia, New South Wales, Beecroft, Forest Commission of N.S.W.
FCTH		Australia, Tasmania, Hobart, Forestry Commission of Tasmania
FHKS		USA, Kansas, Hays, Fort Hays State University
FIDS		Canada, Ontario, Sault Ste. Marie, Great Lakes Forest Research Laboratory, Forest Insect and Disease Survey
FMNH	T	USA, Illinois, Chicago, Field Museum of Natural History

TABLE 4. *Continued*

Abbreviation	T	Name of Collection, Preceded by Country Name
FNML		Netherlands, Leeuwarden, Fries Natuurhistorisch Museum
FRNZ		New Zealand, Rotorua, Forest Research Institute
FSAG		Belgium, Gembloux, Zoologie Generale et Appliquée
FSCA	T	USA, Florida, Gainesville, Division of Plant Industry, Florida State Collection of Arthropods
FSMC		USA, Florida, Gainesville, University of Florida, Florida Museum of Natural History, Allyn Museum
GCNP		USA, Arizona, Grand Canyon, Grand Canyon National Park
GLNP		USA, Montana, West Glacier, Glacier National Park
GNM	T	Sweden, Göteborg, Naturhistoriska Museet
GRSW		Namibia, Gobabeb, Desert Ecological Research Unit
GSMNP		USA, Tennessee, Gatlinburg, Great Smoky Mountains National Park
HCCA		USA, Nebraska, Hastings, Hastings College
HDOA		USA, Hawaii, Honolulu, Hawaii Department of Agriculture
HLMD		Germany, Darmstadt, Hessisches Landesmuseum Darmstadt
HMNS		USA, Texas, Houston, Houston Museum of Natural Science
HMUG		United Kingdom, Glasgow, Glasgow University, Hunterian Museum
HNHM	T	Hungary, Budapest, Hungarian Natural History Museum
HNSA		Austria, Salzburg, Haus der Natur
HZMZ		Croatia, Zagreb, Hrvatski Narodni Zooloski Muzej
IBSV	T	Russia, Vladivstok, Institute of Biology and Soil Science, Far Eastern Branch of the Russian Academy of Sciences
ICBU		Canada, Quebec, Lennoxville, Bishop's University, Natural History Museum
ICIS		USA, Idaho, Pocatello, Idaho State University, Idaho Museum of Natural History
ICNUN		Colombia, Bogatá, Instituto de Ciencias Naturales, Universidad Nacional de Colombia
IDEA		Chile, Arica, Universidad de Tarapacá, Instituto de Agronomia
IEGG		Italy, Bologna, Università di Bologna—Alma Mater Studiorum, Dipartimento di Scienze e Tecnologie Agroambientali—DiSTA—Entomologia, Viale G. Fanin, formerly Università di Bologna, Instituto de Entomologia "Guido Grandi"
IEVB		Belgium, Liege, Université de Liege, Institut de Zoologie (Institut Ed. Van Beneden)
IEXA		México, Veracruz, Xalapa, Instituto de Ecología Colección Entomológica, acronym newly established
IICT		Portugal, Lisboa, Centro de Zoologia do I.I.C.T.
IJSM		Jamaica, Kingston, Institute of Jamaica, Natural History Museum
IMLA	T	Argentina, Tucumán, Universidad Nacional de Tucumán, Fundación e Instituto Miguel Lillo
INBC	T	Costa Rica, Santo Domingo de Heredia, Instituto Nacional de Biodiversidad (INBio)
INBP	T	Paraguay, Asuncion, Inventario Biologico Nacional (Museo Nacional de Historia Natural de Paraguay)
INHS	T	USA, Illinois, Champaign, Illinois Natural History Survey
INLA		Chile, La Cruz, INIA Subestación Experimental Control Biológico La Cruz
INPA	T	Brazil, Amazonas, Manaus, Instituto Nacional de Pesquisas da Amazônia, Colecão Sistemática de Entomologia

TABLE 4. *Continued*

Abbreviation	T	Name of Collection, Preceded by Country Name
IPEE		Russia, Moscow, A. N. Severtzov Institute for Problems of Ecology and Evolution, Russian Academy of the Sciences; formerly the Institute for Evolution, Morphology, and Ecology of Animals (IEME)
IPSM		United Kingdom, Ipswich, Ipswich Museum
IRCW		USA, Wisconsin, Madison, University of Wisconsin
ISMC		USA, Indiana, Indianapolis, Indiana Department of Natural Resources
ISNB	T	Belgium, Brussels, Institut Royal des Sciences Naturelles de Belgique
ISUC		USA, Illinois, Normal, Illinois State University
ISUI		USA, Iowa, Ames, Iowa State University
ITLJ		Japan, Ibaraki, Tsukuba, National Institute of Agro-Environmental Sciences
ITMM		México, Nuevo Leon, Monterrey, Instituto Tecnológico de Monterrey
IUIC		USA, Indiana, Bloomington, Indiana University
IZAC		Cuba, Habana (=Havana), Academia de Ciencias de Cuba, Instituto de Zoología
IZCAS	T	China, Beijing, Academia Sinica, Institute of Zoology
IZNASB		Belarus, Minsk, Institute of Zoology, National Academy of Sciences Belarus
IZUI		Austria, Innsbruck, Institut für Zoologie der Universität Innsbruck
JATH		Hungary, Szeged, University of Szeged
JBWM		Canada, Manitoba, Winnipeg, University of Manitoba, J. B. Wallis Museum of Entomology
JPMP		Hungary, Pecas, Janus Pannonius Museum
JTNM		USA, California, Twentynine Palms, Joshua Tree National Monument
KIPC		Personal collection of Kiyoshi Ishii
KPMC		Michigan, Kalamazoo, Kalamazoo Public Museum
KSBS		USA, Kansas, Lawrence, University of Kansas, State Biological Survey of Kansas
KSUC		USA, Kansas, Manhattan, Kansas State University
KUEC		Japan, Fukuoka, Kyushu University
LACM		USA, California, Los Angeles, Los Angeles County Museum of Natural History
LBIT		France, Toulouse, Laboratoire de Biologie des Insectes
LEMQ		Canada, Quebec, Ste. Anne de Bellevue, McGill University, Lyman Entomological Museum
LPSP		USA, Delaware, Kirkwood, Lumus Pond State Park, Whale Wallow Nature Center
LSAM		USA, Louisiana, Baton Rouge, Louisiana State University, Louisiana State Arthropod Museum
LSUK		United Kingdom, London, Linnean Society
LUNZ		New Zealand, Lincoln, Lincoln University
MACN		Argentina, Buenos Aires, Museo Argentino de Ciencias Naturales
MAGD		Australia, Northern Territory, Darwin, Northern Territory Museum of Arts and Sciences
MAMU		Australia, New South Wales, Sydney, University of Sydney, Macleay Museum
MANF	T	France, Nancy, Muséum Aquarium of Nancy
MB		Portugal, Lisbon, Museu Bocage, Museu Nacional de História Natural, Universidade de Lisboa
MBCG	T	Italy, Bergamo, Museo di Scienze Naturali "Enrico Caffi"

TABLE 4. *Continued*

Abbreviation	T	Name of Collection, Preceded by Country Name
MCNV		Italy, Venice, Museo Civico di Storia Naturale
MCNZ		Brazil, Rio Grande do Sul, Porto Alegre, Museu de Ciencias Naturais da Fundaçao Zoo-Botânica do Rio Grande do Sul
MCPM		USA, Wisconsin, Milwaukee, Milwaukee City Public Museum
MCSC		USA, Colorado, Colorado Springs, May Natural History Museum
MCSN	T	Italy, Genova, Museo Civico di Storia Naturale "Giacomo Doria"
MCSNVR	T?	Italy, Verona, Museo Civico di Storia Naturale
MCZ	T	USA, Massachusetts, Cambridge, Harvard University, Museum of Comparative Zoology
MEMU		USA, Mississippi, Mississippi, Mississippi State University
MFS	T	Italy, Portici (Naples), Museo Fillippo Silvestri e Collezioni dell'Istituto di Entomologia Agraria, Istituto di Entomologia Agraria, Università di Napoli Federico II
MGDL		Luxembourg, Musée d'Histoire Naturelle du Grand-Duchy de Luxembourg
MHNC		Switzerland, La Chaux-de-Fonds, Musée d'Histoire Naturelle
MHNG	T	Switzerland, Geneva, Muséum d'Histoire Naturelle
MHNL		France, Lyon, Musée d'Histoire Naturelle de Lyon
MHNN		Switzerland, Neuchâtel, Muséum d'Histoire Naturelle
MHNV		Chile, Valparaiso, Museo de Historia Natural de Valparaiso
MIUP		Panamá, Universidad de Panamá, Museo Invertebrados Graham B. Fairchild
MLPA	T	Argentina, La Plata, Universidad Nacional de La Plata, Museo de la Plata
MLUH		Germany, Halle (Saale), Martin-Luther-Universität, Wissenschaftsbereich Zoologie
MMBC		Czech Republic, Brno, Moravske Muzeum (Moravian Museum)
MMMN		Canada, Manitoba, Winnipeg, Manitoba Museum of Man and Nature
MMUE		United Kingdom, Manchester, The University, Manchester Museum
MNCR		Costa Rica, San José, Museo Nacional de Costa Rica
MNFD		Germany, Freiburg/Breisgau, Museum für Naturkunde
MNGC		Guatemala, Guatemala City, Museo Nacional de Historia Natural
MNHC	T	Cuba, Habana (=Havana), Museo Nacional de Historia Natural
MNHN	T	France, Paris, Muséum National d'Histoire Naturelle
MNHP		USA, New Jersey, Princeton, Princeton University
MNMS	T	Spain, Madrid, Museo National de Ciencias Naturales
MNNC		Chile, Santiago, Museo Nacional de Historia Natural
MNRJ	T	Brazil, Rio de Janeiro, São Cristóvão, Universidade do Rio Janeiro, Museu Nacional
MNSL		Germany, Leipzig, Naturkundemuseum
MONZ	T	New Zealand, Wellington, Museum of New Zealand
MPEG	T	Brazil, Pará, Belém, Museu Paraense Emílio Goeldi
MRAC	T	Belgium, Tervuren, Musée Royal de l'Afrique Centrale
MRSN	T	Italy, Torino, Museo Regionale di Scienze Naturali
MSNM	T	Italy, Milano, Museo Civico di Storia Naturale
MSSC		USA, Texas, Wichita Falls, Midwestern State University
MSUC		USA, Michigan, East Lansing, Michigan State University
MTEC		USA, Montana, Bozeman, Montana State University

TABLE 4. *Continued*

Abbreviation	T	Name of Collection, Preceded by Country Name
MUCR		Costa Rica, Ciudad Universitaria, Universidad de Costa Rica, Museo de Insectos
MUDH		Netherlands, The Hague, Museon
MUNC		Canada, Newfoundland, St. John's, Memorial University of Newfoundland
MUNZ		New Zealand, Palmerston North, Massey University
MUSM	T	Peru, Lima, Universidad Nacional Mayor de San Marcos, Museo de Historia Natural
MVEN		Netherlands, Enschede, Natuurhistorisch Museum
MVHN		Spain, Valencià, Museu Valencià d'Història Natural
MVMA		Australia, Victoria, Abbotsford, Museum of Victoria
MWNH		Germany, Wiesbaden, Museum Wiesbaden, Department of Natural Science
MZCR		Costa Rica, Ciudad Universitaria, Universidad de Costa Rica, Museo de Zoología
MZHF	T	Finland, Helsinki, University of Helsinki, Zoological Museum
MZLS	?	Switzerland, Lausanne, Musée Zoologique
MZLU	T	Sweden, Lund, Lund University
MZNA		Spain, Pamplona, Universidad de Navarra, Museum of Zoology
MZPW	T	Poland, Warszawa (=Warsaw), Polish Academy of Science, Museum of the Institute of Zoology
MZSP	T	Brazil, São Paulo, São Paulo, Museu de Zoologia da Universidade de São Paulo
MZUF	T	Italy, Firenze, Museo Zoologico "La Specola"
MZUL	T	Italy, Rome, Museo di Zoologia dell'Università di Roma "La Sapienza"
MZUMRE		Italy, Modena, Museo di Zoologia, University of Modena and Reggio Emilia
NARI		Guyana, Demerara, National Agricultural Research Institute
NBMB		Canada, New Brunswick, St. John, New Brunswick Museum
NCHU		Taiwan (Republic of China), Taichung, National Chung Hsing University
NCMK		United Kingdom, Norwich, Norwich Castle Museum
NCSM	T	USA, North Carolina, Raleigh, North Carolina State Museum of Natural Sciences
NCSU		USA, North Carolina, Raleigh, North Carolina State University Insect Collection
NDFC		Canada, Newfoundland, Corner Brook, Newfoundland Department of Forestry
NDSU		USA, North Dakota, Fargo, North Dakota State University
NFRC		Canada, Alberta, Edmonton, Northern Forest Research Centre
NHMA		Denmark, E. Jutland, Århus, Natural History Museum
NHME		Netherlands, Maastricht, Natuurhistorisch Museum
NHMK		Austria, Klagenfurt, Landesmuseum für Kärnten
NHMM		Germany, Mainz, Naturhistorisches Museum Mainz
NHMN		United Kingdom, Nottingham, Nottingham Natural History Museum (Wollaton Hall)
NHMR		Netherlands, Rotterdam, Natuurhistorisch Museum
NHMW	T	Austria, Wien, Naturhistorisches Museum Wien
NHRI		Iceland, Reykjavik, Icelandic Institute of Natural History, formerly the Icelandic Museum of Natural History
NHRS	T	Sweden, Stockholm, Naturhistoriska Riksmuseet
NJSM		USA, New Jersey, Trenton, New Jersey State Museum
NKUM		China, Tianjin, Tianjin, Nankai University

TABLE 4. *Continued*

Abbreviation	T	Name of Collection, Preceded by Country Name
NMBA	T	Switzerland, Basel, Naturhistorisches Museum
NMBS		Switzerland, Bern, Naturhistorisches Museum
NMBZ	T	Zimbabwe, Bulawayo, Natural History Museum of Zimbabwe
NMCL		Germany, Coburg, Naturkunde-Museum
NMKE		Kenya, Nairobi, National Museum of Kenya
NMLS		Switzerland, Luzern, Natur-Museum Luzern
NMNS		Taiwan (Republic of China), Taichung, National Museum of Natural Science
NMNW	T	Namibia, Windhoek, National Museum of Namibia
NMPC		Czech Republic, Praha (=Prague), National Museum (Natural History)
NMSA	T	South Africa, Kwa-Zulu Natal, Pietermaritzburg, Natal Museum
NMWC		United Kingdom, Cardiff, National Museum of Wales
NNKN		Netherlands, Tilburg, Noordbrabants Natuurmuseum
NRNZ		New Zealand, Whangarei, Northland Regional Museum
NSMT	T	Japan, Tokyo, National Science Museum (Natural History)
NTPC		Personal collection of Nobuo Tsurusaki
NYSM		USA, New York, Albany, New York State Museum
NZAC	T	New Zealand, Auckland, Landcare Research, New Zealand Arthropod Collection
NZCS		Suriname, Paramaribo, University, National Zoological Collection of Suriname
ODAC		USA, Oregon, Salem, Oregon Department of Agriculture
OHBR		Canada, Ontario, Toronto, Ontario Hydro
OHSC		USA, Ohio, Columbus, Ohio Historical Society
OLML		Austria, Linz, Oberösterreichisches Landesmuseum
OMNO		USA, Oklahoma, Norman, University of Oklahoma, Oklahoma Museum of Natural History
OMNZ		New Zealand, Dunedin, Otago Museum
ONNC		New Caledonia, Noumea, Office de la Recherche Scientifique et Technique d'Outre-Mer
OSAC		USA, Oregon, Corvallis, Oregon State Arthropod Collection, Oregon State University
OSAL		USA, Ohio, Columbus, Ohio State University Acarology Laboratory
OSEC		USA, Oklahoma, Stillwater, Oklahoma State University, K. C. Emerson Museum
OSU		USA, Ohio, Columbus, Ohio State University
OUMNH	?	United Kingdom, Oxford, University Museum, Hope Entomological Collections
PADA		USA, Pennsylvania, Harrisburg, Pennsylvania Department of Agriculture
PANZ		New Zealand, Auckland, National Plant Pest Reference Laboratory, Ministry of Agriculture and Forestry (collection contains the Plant Protection Center Collection [PPCC])
PCNZ		New Zealand, Lincoln, National Plant Pest Reference Laboratory, Ministry of Agriculture and Forestry, formerly Ministry of Agriculture and Fisheries, Lincoln Plant Health Station
PFRA		Canada, Saskatchewan, Indian Head, Tree Nursery
PINN		USA, California, Paicines, Pinnacles National Monument
PMAE		Canada, Alberta, Edmonton, Provincial Museum of Alberta
PMAG		United Kingdom, Perth, Perth Museum and Art Gallery

TABLE 4. *Continued*

Abbreviation	T	Name of Collection, Preceded by Country Name
PMAU		United Kingdom, Priestgate, Peterborough Museum and Art Gallery
PMNH	T	USA, Connecticut, New Haven, Yale University, Peabody Museum of Natural History
PMSL		Slovenia, Ljubljana, Slovene Museum of Natural History
PNPC		USA, Oklahoma, Sulphur, Chickasaw National Recreational Area, formerly Platt National Park
PPCC		New Zealand, Auckland, Lynfield Agricultural, Plant Protection Centre Collection, see PANZ
PPCD		USA, West Virginia, Charleston, West Virginia Department of Agriculture
PPRI		South Africa, Gauteng, Pretoria, Plant Protection Research Institute
PRRP	T	USA, Puerto Rico, Rio Piedras, University of Puerto Rico
PSUC		USA, Pennsylvania, University Park, Pennsylvania State University, Frost Entomological Museum
PURC		USA, Indiana, West Lafayette, Purdue University
QM	T	Australia, Queensland, South Brisbane, Queensland Museum
QMOR		Canada, Quebec, Montreal, University of Montreal, Collection Entomologique Ouellet-Robert
QVMAG	T	Australia, Tasmania, Launceston, Queen Victoria Museum and Art Gallery
RMNH	T	Netherlands, Leiden, Nationaal Natuurhistorisch Museum ("Naturalis"); formerly Rijksmuseum van Natuurlijke Historie
RMSC		USA, Colorado, Fort Collins, Rocky Mountain Research station, formerly the Rocky Mountain Forest and Range Experiment Station
ROME		Canada, Ontario, Toronto, Royal Ontario Museum
RSME		United Kingdom, Edinburgh, National Museums of Scotland
SACC		USA, Iowa, Davenport, St. Ambrose College
SAM		Australia, South Australia, Adelaide, South Australian Museum
SAMC	T	South Africa, Cape Town, South African Museum
SANC		South Africa, Pretoria, South African National Collection of Insects
SBMN		USA, California, Santa Barbara, Santa Barbara Museum of Natural History
SCSC		USA, Minnesota, St. Cloud, Saint Cloud State University
SDMC		USA, California, San Diego, San Diego Natural History Museum
SDSU		USA, South Dakota, Brookings, South Dakota State University, Severin-McDaniel Insect Collection
SEAN		Nicaragua, Léon, Servicio Entomológico Autónomo, Museo Entomológico
SEMC	?	USA, Kansas, Lawrence, University of Kansas, Snow Entomological Museum
SFAC		USA, Texas, Nacogdoches, Stephen F. Austin State University
SFVS		USA, California, Northridge, San Fernando Valley State University
SIIS		USA, New York, Staten Island, Staten Island Institute of Arts and Sciences
SIZK		Ukraine, Kiev, Schmalhausen Institute of Zoology
SJAC		USA, California, Stockton, San Joaquin County Agriculture Commissioner
SJSC		USA, California, San Jose, San Jose State University, J. Gordon Edwards Museum of Entomology
SLJG		Austria, Graz, Steiermärkisches Landesmuseum Joanneum

TABLE 4. *Continued*

Abbreviation	T	Name of Collection, Preceded by Country Name
SLSC		USA, Missouri, St. Louis, St. Louis Science Center
SMDV		Canada, British Columbia, Vancouver, University of British Columbia, Spencer Museum
SMF	T	Germany, Frankfurt-am-Main, Forschungsinstitut und Naturmuseum Senckenberg
SMJM		Malaysia, Kota Kinabalu, Sabah Museum
SMNG		Germany, Görlitz, Staatliches Museum für Naturkunde
SMNH		Canada, Saskatchewan, Regina, Royal Saskatchewan Museum
SMNK		Germany, Karlruhe, Staatliches Museum für Naturkunde Karlsruhe
SMNS		Germany, Stuttgart, Staatliches Museum für Naturkunde
SMOC		Czech Republic, Opava, Slezské Muzeum Opava
SMPM		USA, Minnesota, St. Paul, Science Museum of Minnesota
SMSM		Malaysia, Sarawak, Kuching, Sarawak Museum
SMTD		Germany, Dresden, Staatliches Museum für Tierkunde
SMVM		Seychelles, Mahé, Union Vale, National Archives and Museum
SNMB		Germany, Braunschweig, Staatliches Naturhistorisches Museum
SNMC		Slovakia, Bratislava, Slovenské Národné Muzeum
SOFM	T	Bulgaria, Sofia, National Museum of Natural History
SSMS		Suriname, Paramaribo, Suriname State Museum
STRI		Panama, Balboa (via USA, Florida, Miami), Smithsonian Tropical Research Institute
SUEL		Hungary, Zirc, Natural History Museum of Bakony Mountains
SWRS		USA, Arizona, Portal, Southwestern Research Station
SZMN		Russia, Novosibirsk, Institute of Animal Systematics and Ecology, Siberian Zoological Museum
TAMU		USA, Texas, College Station, Texas A&M University
TARI		Taiwan (Republic of China), Taichung, Taiwan Agricultural Research Institute
TAU	T	Israel, Tel Aviv, Zoological Museum, Tel Aviv University
TIHU		Israel, Jerusalem, Terrestrial Invertebrate Collection, Department of Evolution, Systematics and Ecology, Hebrew University
TKPM	T	Japan, Tokushima, Tokushima Prefectural Museum
TLMF		Austria, Innsbruck, Tiroler Landesmuseum Ferdinandeum
TMMC	T	USA, Texas, Austin, Texas Memorial Museum
TMSA	T	South Africa, Gauteng, Pretoria, Transvaal Museum
TTCC		USA, Texas, Lubbock, Texas Tech University
UABD		USA, Alabama, Tuscaloosa, University of Alabama
UABS		Spain, Cerdanyola del Vallès (Barcelona), Unidad de Zoologia, Departament de Biologia Animal, Biologia Vegetal I Ecologia, Facultat di Ciències, Universitat Autònoma de Barcelona
UADE		USA, Arkansas, Fayetteville, University of Arkansas
UASM		Canada, Alberta, Edmonton, University of Alberta, E. H. Strickland Entomological Museum
UCCC		Chile, Concepción, Universidad de Concepción, Museo de Zoologia
UCDC	T	USA, California, Davis, University of California, R. M. Bohart Museum of Entomology
UCFC		USA, Florida, Orlando, University of Central Florida

TABLE 4. *Continued*

Abbreviation	T	Name of Collection, Preceded by Country Name
UCMC		USA, Colorado, Boulder, University of Colorado Museum
UCMS		USA, Connecticut, Storrs, University of Connecticut
UCR		USA, California, Riverside, University of California
UCVC		Chile, Valparaiso, Universidad Católica de Valparaiso
UDCC		USA, Delaware, Newark, University of Delaware
UFMT	T	Brazil, Mato Grosso, Cuiabá, Universidade Federal de Mato Grosso, Instituto de Biociencias
UGCA		USA, Georgia, Athens, University of Georgia
UGZM		México, Jalisco, Zapopan, Universidad de Guadalajara, Centro de Estudios en Zoología
UHM		USA, Hawaii, Honolulu, University of Hawaii, Manoa, College of Tropical Agriculture, Department of Entomology
ULKY		USA, Kentucky, Louisville, University of Louisville
UMB	T	Germany, Bremen, Übersee-Museum Bremen
UMDC		USA, Maryland, College Park, University of Maryland
UMDE		USA, Maine, Orono, University of Maine
UMEC		USA, Massachusetts, Amherst, University of Massachusetts
UMIC		USA, Mississippi, University, University of Mississippi
UMMZ		USA, Michigan, Ann Arbor, University of Michigan, Museum of Zoology
UMRM		USA, Missouri, Columbia, University of Missouri, W. R. Enns Entomology Museum
UMSP		USA, Minnesota, St. Paul, University of Minnesota
UNAC		Nicaragua, Managua, Universidad Nacional Agraria
UNAD		Peru, Lima, Universidad Nacional Agraria
UNAM	T	México, México D.F., Universidad Nacional Autónoma de México
UNAN		Nicaragua, Léon, Universidad Nacional Autónoma de Nicaragua
UNIPD	T	Italy, Padova, University of Padova
UNMC		USA, New Mexico, Albuquerque, University of New Mexico
UNSM		USA, Nebraska, Lincoln, University of Nebraska State Museum
UOIC		USA, Oregon, Eugene, University of Oregon
UOPJ		Japan, Osaka, Sakai, Osaka Prefecture University
UPRG		Peru, Lambayeque, Universidad Nacional "Pedro Ruiz Gallo"
UQIC		Australia, Queensland, St. Lucia, University of Queensland
URIC		USA, Rhode Island, Kingston, University of Rhode Island
URMU		Uruguay, Montevideo, Museo Nacional de Historia Natural
USNM	T	USA, Washington D.C., National Museum of Natural History, formerly United States National Museum
UVCC		USA, Vermont, Burlington, University of Vermont
UVGC		Guatemala, Guatemala City, Universidad del Valle de Guatemala, Colleción de Artrópodos
UWBM	T	USA, Washington, Seattle, University of Washington, Burke Museum
UWCP		Poland, Wroclaw, University of Wroclaw

TABLE 4. *Continued*

Abbreviation	T	Name of Collection, Preceded by Country Name
UWIC		Trinadad and Tobago, St. Augustine, University of the West Indies
UWOC		Canada, Ontario, London, University of Western Ontario
UZIU	T	Sweden, Uppsala, Uppsala University
VDAM		Australia, Victoria, Burnley, Victoria Department of Food and Agriculture, Institute of Plant Science
VMNH	T	USA, Virginia, Martinsville, Virginia Museum of Natural History
VNGA		Austria, Dornbirn, Vorarlberger Naturschau
VPIC		USA, Virginia, Blacksburg, Virginia Polytechnic Institute and State University
VUA		Netherlands, Amsterdam, Vrije Universiteit
VUWE		New Zealand, Wellington, Victoria University
WAMP	T	Australia, Western Australia, Perth, Western Australian Museum
WFBM		USA, Idaho, Moscow, University of Idaho, W. F. Barr Entomological Collection
WINC		Australia, South Australia, Glen Osmond, Adelaide University, Waite Campus, Waite Insect and Nematode Collection
WIUC		USA, Illinois, Macomb, Western Illinois University
WSU	T	USA, Washington, Pullman, Washington State University, Maurice T. James Entomological Collection
WVUC		USA, West Virginia, Morgantown, West Virginia University
WWSP		USA, North Carolina, Southern Pines, Weymouth Woods Sandhills Nature Preserve
ZFMK		Germany, Bonn, Zoologisches Forschungsinstitut und Museum "Alexander Koenig"
ZIN	T	Russia, St. Petersburg, Russian Academy of Sciences, Zoological Institute
ZLMU		Japan, Nagoya, Meijo University
ZMAN	T	Netherlands, Amsterdam, Universiteit van Amsterdam, Instituut voor Taxonomische Zoologie, Zoologisch Museum
ZMB	T	Germany, Berlin, Museum für Naturkunde der Humboldt Universität
ZMKG		Germany, Kiel, Zoologisches Museum Kiel
ZMKU		Ukraine, Kiev, Zoological Museum
ZMMU	T	Russia, Moscow, Zoological Museum, University of Moscow
ZMUA		Greece, Athens, University of Athens, Zoological Museum
ZMUB		Norway, Bergen, University of Bergen, Zoological Museum
ZMUC	T	Denmark, København (=Copenhagen), The Natural History Museum of Denmark
ZMUG		Germany, Göttingen, Zoologisches Museum der Universität Göttingen
ZMUH	T	Germany, Hamburg, Universität Hamburg, Zoologisches Institut und Zoologisches Museum
ZMUN		Norway, Oslo, University of Oslo, Zoological Museum
ZMUZ		Switzerland, Zoological Museum of the University of Zürich, Zürich
ZRC	T	Singapore, National University of Singapore, Raffles Museum of Biodiversity Research, Zoological Reference Collection
ZSI		India, Uttaranchal, Zoological Survey of India, North Regional Station
ZSMC	T	Germany, München (=Munich), Zoologische Staatssammlung

COLLECTION SURVEY

List of millipede collections, arranged alphabetically by country

ALGERIA

No contact was established with Musée de Beni Abbes (Centre Nacional de recherche sur les zones arides, Beni Abbes, W. Bechar).

ANGOLA

No contact was established with Museu do Dundo (Rua de Nossa Senhora de Muxima, Luanda).

ARGENTINA

No contact was established with Colección Entomológica, Catedra de Zoología Agrícola, Universidad Nacional de Cuyo (Alte Brown 500, C.P. 5505, Chacras de Coria-Lujan de Cuyo, Mendoza); Instituto de Investigaciones Entomológicas Salta "INESALT" (9 Julio 14, Rosario de Lerma, Salta 4405); and Instituto Patagónico de Ciencias Naturales de San Martín de los Andes (Casilla de Correo no. 7, 8370 San Martin de Los Andes, Neuquen).

CRICYT (Centro Regional de Investigaciones Científicas y Técnicas), Av. Ruíz Leal s/n Parque, General San Martín, Mendoza, Argentina, CP 5500 (CRICYT)

Curatorial Staff: Sergio Roig-Juñent
E-mail: saroig@lab.cricyt.edu.ar

Very small millipede collection.

División de Entomologia, Museo Argentino de Ciencias Naturales, Av. Angel, Gallardo 470 (C.C. 220, suc. 5), Buenos Aires 1405 DJR (MACN)

Curatorial Staff: Christina Luisa Scioscia
Phone: 54-11-9825243
Fax: 54-11-9824494
E-mail: scioscia@mvanbegov.ar

Types: none. Collection: unspecified number of lots, not identified to order. Specimens are stored in 80% ethanol; collection labels are handwritten. Collection is not cataloged. Holdings mainly from the Neotropics. Associated collections: none.

Museo de La Plata, Divisón Invertebrados, Paseo del Bosque s/n, 1900 La Plata (MLPA)

Curatorial Staff: Louis Alberto Pereira
Phone: 54-221-4257744
Fax: 54-221-4257527
E-mail: myriapo@infovia.com.ar, lpereira@museo.fcnym.unlp.edu.ar

Types: 10 lots (Schubart). Types are separated from collection, and a type catalog is available from the curator. Collection: 95 lots (est.): 50 in backlog. Collection labels are handwritten. Collection is cataloged in catalog books and computerized (taxon-based relational database). Holdings mainly from the Neotropics. Associated collections: none. Collection growth: 10 lots per year.

Colección de Invertebrados, Fundación Miguel Lillo, Miguel Lillo 251, San Miguel de Tucumán, 4000 Tucumán (IMLA)

Curatorial Staff: Luis Emilio Grosso
Phone: 54-381-4230056
Fax: 54-381-4330868
E-mail: fmlzoo@tucbbs.com.ar

Types: five lots (Kraus; Takakuwa & Miyosi). Types are separated from the formed collection; no type catalog is available. Collection: 485 lots (count): 250 lots identified to family; 235 lots partly identified to order in backlog. Specimens are stored in ethanol; collection labels are handwritten. Collection is arranged by collection number. The formed collection is cataloged in catalog books. Individual lot numbers have been assigned. Holdings mainly from the Neotropics. Associated collections: none.

ARMENIA, REPUBLIC OF

National Academy of Sciences of Armenia, Institute of Zoology, Marshall Baghramian Avenue 24, 375019 Yerevan (ASAY)

Curatorial Staff: M. Kalashian
E-mail: mkalashian@yahoo.com

No millipede collection.

AUSTRALIA

Biological collection institutions are arranged by Australian provinces. The following institutions do not house millipede collections: Forest Com-

mission of N.S.W. (P.O. Box 100, Beecroft, New South Wales 2119 [FCNI]; curatorial staff: Dr. Deborah Kent), Queensland Department of Primary Industries (Division of Plant Protection, Meiers Road, Indooroopilly, Queensland 4068; curatorial staff: J. F. Donaldson), Tasmanian Forest Insect Collection (Forestry Commission, 79 Melville Street, GPO Box 207 B, Hobart, Tasmania 7001 [FCTH]; curatorial staff: Mr. R. Bashford; all specimens sent to R. Mesibov at [QVMAG]), and Department of Zoology (University of Western Australia, Nedlands, Perth, Western Australia 6009 [USAC]; curatorial staff: Dr. Barbara York Main; millipede specimens passed on to Western Australian Museum).

Australian Capital Territory

CSIRO, Division of Entomology, P.O. Box 1700, Canberra, ACT 2601 (ANIC)

Curatorial Staff: Dr. R. B. Halliday
Phone: 61-2-62464085
Fax: 61-2-62464000
E-mail: bruceh@ento.csiro.au

Types: none. Collection: 1,000 lots (est.): 100 identified at least to family level; 900 lots (est.) in backlog. Specimens are stored in 70% ethanol; collection labels are handwritten. Collection is arranged alphabetically by family. Formed collection is not cataloged. All material from Australia. Associated collections: actively growing reprint collection. Estimated collection growth: 10 lots per year.

New South Wales

Australian Museum, 6 College Street, Sydney, New South Wales 2000 (AMS)

Curatorial Staff: Dr. Michael Gray; Collection Manager: Graham Milledge
Phone: 61-2-93206201
Fax: 61-2-93206050
E-mail: grahamm@austmus.gov.au

Types: 82 lots (Brolemann; Johns; Shear; Shear & Mesibov; Verhoeff). Types are separated from the formed collection. Type catalog is available at *http://www.amonline.net.au/spiders/collections/types/index.cfm.* Collection: 1,250 lots (count): 265 lots identified to family; 985 lots partly identified to order in backlog. Specimens are stored in 70% ethanol; collection labels are printed with either a laser or a dot-matrix printer or handwritten. Collection is arranged alphabetically by family. The formed collection is partly cataloged and computerized (taxon-based relational database). Individual lot numbers have been assigned. Extensive holdings from Australia and some holdings from the Neotropics, Europe, New Zealand, and the Pacific Islands. Associated collections: historical reprint and actively growing bulk sample collections. Estimated collection growth: 30 lots per year. Note: The museum also houses Silurian and Devonian fossil millipede specimens.

Macleay Insect Collection, Macleay Museum, University of Sydney, Sydney, New South Wales 2006 (MAMU)

Curatorial Staff: Margaret Humphrey
Phone: 61-2-93512274
Fax: 61-2-93515646
E-mail: humphreym@agric.usyd.edu.au

It is not known whether any types are present. Collection: 50 lots (est.): none identified and many unlabeled. Historical collection dating from mid-1700s. Specimens are pinned and stored in drawers; labels (if present) are handwritten. Collection is not cataloged. Material includes specimens from western North America, Central America, the Palearctic, India, Southeast Asia, southern Africa, and Australia. Associated collections: none; collection growth: none.

NSW Agricultural Scientific Collections Unit, NSW Agriculture, Forest Road, Orange, New South Wales 2800 (ASCU)

Curatorial Staff: Murray J. Fletcher
Phone: 61-2-63913943
Fax: 61-2-63913899
E-mail: murray.fletcher@agric.nsw.gov.au

Types: none. Collection consists of 34 lots, partly identified to order, mostly unsorted. Specimens are stored in 70% ethanol; collection labels are handwritten. Collection is not cataloged. Estimated collection growth: one lot per year. The millipedes in this collection are those that have been submitted for identification, usually as nuisances in houses.

Northern Territory

Museum and Art Gallery of the Northern Territory, P.O. Box 4646, Darwin, Northern Territory 0801 (MAGD)

Curatorial Staff: Gavin Dally
Phone: 61-8-89998201

Types: none. Collection: 40 lots (count): five identified at least to family level. Collection is housed in six jars; 35 lots (est.) in backlog. Specimens are stored in 70% ethanol; collection labels are handwritten and laser printed (laser-printed labels were baked prior to immersion in ethanol). Collection is not cataloged. All specimens from Australia (Northern Territory). Associated collections: none. Collection growth: none.

Queensland

Insect collection, Department of Entomology, University of Queensland, Saint Lucia, Queensland 4067 (UQIC)

Curatorial Staff: Greg Daniels
Phone: 61-7-33657084
Fax: 61-7-33651922
E-mail: g.daniels@ento.uq.edu.au

Types: none. Collection: 200 lots (est.). Collection is arranged in numbered jars. Specimens are stored in 80% ethanol; collection labels are handwritten. Collection is cataloged on file cards. Holdings mainly from Australia; some specimens from the Pacific Islands. Associated collections: actively growing reprint collection. Estimated collection growth: two to five lots per year.

Queensland Museum, Grey Street, P.O. Box 3300, South Brisbane, Brisbane, Queensland 4101 (QM)

Curatorial Staff: Dr. Robert J. Raven
Phone: 61-7-38407698
Fax: 61-7-38461226
E-mail: RobertR@qm.qld.gov.au

Types: seven lots (Mauriès; Shear & Mesibov). Types are separated from the formed collection. A type catalog is available from the curator. Collection: 2,000 lots (est.): 500 lots identified to family; 300 lots identified to order in backlog. Specimens are stored in 70%–80% ethanol; collection labels are either printed with a laser printer or handwritten (printer labels are baked for 5 minutes). Collection is arranged alphabetically by family. The formed collection is partly cataloged and computerized (lot- or specimen-based relational database). Individual lot numbers have been assigned. Extensive holdings from Australia and the Pacific Islands; some specimens from Southeast Asia and New Zealand. Associated collections: historical reprint collection and actively growing bulk sample collections. Estimated collection growth: 300 lots per year. Note: The museum also houses Jurassic fossil millipede specimens.

South Australia

South Australian Museum, North Terrace, Adelaide 5000, South Australia (SAM)

Curatorial Staff: Mrs. Jan A. Forrest
Phone: 61-8-8207750
Fax: 61-8-82077222
E-mail: forrest.jan@saugov.sa.gov.au

Types: none. Collection: 275 to 300 lots (est.): 240 (est.) identified at least to family; 50 lots in backlog (est.), identified to order. Specimens are stored in 75% ethanol; labels are handwritten and laser printed (laser labels heated to fuse ink into paper). Formed collection is organized by systematic arrangement. Collection is not cataloged. Holdings mainly from Australia; some specimens from Asia and the Pacific Islands. Associated collections: a small historical reprint collection. Estimated collection growth: 20 to 30 lots per year.

Waite Insect and Nematode Collection, Waite Campus, University of Adelaide, Glen Osmond, South Australia 5064 (WINC)

Curatorial Staff: Dr. John Jennings
Phone: 61-8-83037277
Fax: 61-8-83794095
E-mail: john.jennings@adelaide.edu.au

Types: none. Collection: 66 lots (count): about 50 identified to family; backlog partly identified to order. Specimens are stored in 70% ethanol; collection labels are printed with a laser printer, typed, or handwritten. Collection is arranged systematically. The formed collection is not cataloged. Holdings mainly from Australia. Associated collections: historical microscope slide and bulk sample collections. Estimated collection growth: five lots per year.

Tasmania

Queen Victoria Museum and Art Gallery, Wellington Street, Launceston, Tasmania 7250 (QVMAG)

Curatorial Staff: Dr. Robert Mesibov
Phone: 61-3-63233777
Fax: 61-3-63233776
E-mail: mesibov@southcom.com.au

Types: 22 lots (Shear & Mesibov). Types are sep-

arated from the collection, and a type catalog is available through R. Mesibov. Collection: 6,200 lots (est.): 5,000 (est.) identified at least to family; 1,000 lots identified to order; 200 lots (est.) in bulk backlog. Specimens are stored in 80% ethanol; collection labels are handwritten. Collection is electronically cataloged (about two-thirds complete) in lot-based database, each lot identified by unique QVMAG numbers. Extensive general holdings from Tasmania. R. Mesibov maintains a database of all Tasmanian millipede specimens in collections. Estimated collection growth: several hundred lots per year.

Victoria

Victorian Agricultural Insect Collection, Agriculture Victoria PMB 15, Southeastern Mail Centre, Victoria 3176 (VDAM)

Curatorial Staff: Dr. M. Malipatil
Phone: 61-3-92109222
Fax: 61-3-98003521
E-mail: mallik.malipatil@nre.vic.gov.au

Types: none. Collection: 100 lots (est.). Specimens are stored in 70% ethanol; collection labels are handwritten. Collection is not cataloged. All specimens from Australia (Victoria). Associated collections: historical reprint collection. Annual collection growth: unspecified.

Department of Entomology, Museum of Victoria, 71 Victoria Crescent, Abbotsford, VICT 3067 (MVMA)

Curatorial Staff: K. L. Walker/Peter Lillywhite
E-mail: plwhite@museum.vic.gov.au, kwalker@museum.vic.gov.au

Types: none. Collection: 550 vials: 510 vials identified to family; 40 vials in backlog. Specimens are stored in 70% ethanol; collection labels are handwritten. The collection is arranged systematically. The formed collection is not cataloged.

Western Australia

CALM Science Division, Department of Conservation and Land Management, Locked Bag 104, Bentley Delivery Centre, Western Australia 6983 (CLMP)

Curatorial Staff: T. E. Burbidge
Fax: 61-8-93340327

Types: none. Collection: 40 lots (est.): none identified. Specimens are stored in 70% ethanol; collection labels are handwritten. Collection is not cataloged. All specimens from southwestern Australia. Estimated collection growth: currently more than 100 lots per year from active pitfall sampling program.

Western Australian Museum, Francis Street, Perth, Western Australia 6000 (WAMP)

Curatorial Staff: Dr. Mark S. Harvey
Phone: 61-8-94272737
Fax: 61-8-94272882
E-mail: mark.harvey@museum.wa.gov.au

Types: 17 lots (Attems; Hoffman; Shear; Shear & Mesibov). Types are separated from the collection, and a type catalog is available at *http://www.museum.wa.gov.au/collections/terr_invert/typesin3.html.* Collection: 1,000 lots (est.): about 500 identified at least to family; 500 lots (est.) in backlog, partly identified to order. Specimens are stored in 75% ethanol; collection labels are handwritten and laser printed. Collection is arranged by order and within order by family. Collection is computerized (lot- or specimen-based relational database). Holdings mainly from Australia; some material from Southeast Asia. Associated collections: none. Estimated collection growth: 75 lots per year.

AUSTRIA

The following institutions do not house millipede collections (confirmed by Dr. V. Stagl [NHMW]): Voralberger Naturschau (Markestrasse 33, A-6850 Dornbirn [VNGA]; curatorial staff: Herbert Waldegger), Steiermärkisches Landesmuseum (Joanneum, Abt. für Zoologie, Raubergasse 10, A-8045 Graz [SLJG]; curatorial staff: Juliana Madler), Tiroler Landesmuseum Ferdinandeum (Museumstrasse 15, A-6020 Innsbruck [TLMF]; curatorial staff: Dr. Peter Huemer), Haus der Natur (Museumsplatz 5, A-5020 Salzburg [HNSA]; curatorial staff: Dr. Stüber), and Sammlung des Bundesamtes und Forschungszentrums für Wald (Seckendorff, Gudentweg 8, A-1131 Wien [BFW]; curatorial staff: Hannes Krehan).

Institut für Zoologie, Universität Innsbruck, Technikerstrasse 25, A-6020 Innsbruck (IZUI)

Curatorial Staff: Dr. Konrad Thaler
Fax: 43-512-5072930
E-mail: Konrad.Thaler@uibk.ac.at

Types: none. Collection: 200 lots (est.): all identified to family. Specimens are stored in ethanol; collection labels are handwritten. Holdings from Europe. Collection contains voucher material deposited by Verhoeff, distributed by him at irregular intervals from his fieldwork (diploma thesis).

Landesmuseum für Kärnten, Zool. Abteilung, Museumstrasse 2, A-9020 Klagenfurt (NHMK)

Curatorial Staff: Paul Mildner
E-mail: paul.mildner@schatzsuche.at

Types: none. Collection: 100 vials (est.). Specimens are stored in ethanol. Holdings from the Palearctic.

Naturhistorisches Museum Wien, Burgring 7, A-1040 Wien (NHMW)

Curatorial Staff: Dr. Verena Stagl
Phone: 43-1-52177323
Fax: 43-1-52177327
E-mail: verena.stagl@nhm-wien.ac.at

Types: about 1,800 lots (Attems; Brolemann; Carl; Enghoff; Golovatch; Hoffman; Humbert & DeSaussure; Johns; Karsch; L. Koch; Kraus; Latzel; Mauriès; Mikhaljova; Porat; Read; Ribaut; Schubart; Silvestri; Strasser; Tabacaru; Verhoeff; Wood). Types are not separated from the collection. Published type catalog for some groups is available (Wirkner et al., 2002). Collection: 15,000 lots (est.): all identified to family; no backlog. Specimens are stored in 75% ethanol; collection labels are handwritten. Collection is arranged systematically, with species ordered alphabetically within genus. Collection is cataloged in catalog books and accession records and is computerized (lot- or specimen-based flat file). Individual lot numbers have been assigned. Associated collections: actively growing reprint collection (cataloged) and historical microscope slide collection (cataloged) and bulk sample collections. Major holdings from Europe, the Mediterranean/northern Africa, and southern Africa; some material from the Nearctic, Central America, the Neotropics, Asia, Oriental regions, western and eastern Africa, Australia, New Zealand, and the Pacific Islands. Extensive voucher material deposited by Attems; see Stagl (2003) for a description of the myriapod collections of the Naturhistorisches Museum. Estimated collection growth: 10 lots per year. Note: The Geologisch-Paläontologische Abteilung of the museum houses a significant collection of fossil millipedes.

Biologiezentrum des OÖ. Landesmuseums, J.-W.-Klein-Str. 73, A-4040 Linz (OLML)

Curatorial Staff: Dr. Erna Aescht
Phone: 43-732-75973353
Fax: 43-732-75973399
E-mail: e.aescht@landesmuseum-linz.ac.at

Types: none. Collection: 130 lots: backlog partly identified to order. Most specimens are stored in ethanol; 20 specimens are dried. Collection labels are handwritten. The collection is not cataloged. Holdings from Europe (Mediterranean) and northern Africa. Associated collections: historical reprint and bulk sample collections.

AZERBAIJAN

No contact was established with Institute of Zoology, Academy of Sciences of Azerbaijan (Kvartal 504, Proezd 1128 Baku, GSP 370073).

BANGLADESH

No contact was established with Zoology Museum (University of Dhaka, Dhaka-2).

BARBADOS

No contact was established with Caribbean Agricultural Research Institute (IPC Project Collection, Sugar Technology Research Unit, Edge-Hill, St. Thomas).

Barbados Museum and Historical Society, St. Ann's Garrison (BMGB)

Curatorial Staff: Dr. Devenish

No millipede collection.

BELARUS

Institute of Zoology of NAS, Akademicheskaya, 27, Minsk 220072 (IZNASB)

Curatorial Staff: Dr. Svetlana Maksimova
Phone: 375-172-842192
Fax: 375-172-841036
E-mail: soilzool@biobel.bas-net.by

Types: none. Collection: 750 lots: 250 identified to family, 110 in backlog; backlog identified to order. Labels are typed and handwritten. Collec-

tion is arranged systematically. Collection is cataloged in catalog books and accession records. Individual lot numbers have been assigned. Holdings mainly from Europe. Associated collections: historical photographs, prints, and slides. Curator maintains both male and female examples of all species of millipedes that occur in Belarus.

BELGIUM

No contact was established with Royal Belgian Society for Geological and Archeological Studies (Laboratoire de Biologie Souterraine de Ramioul, rue de la Grotte 128, B-4400 Flémalle; curatorial staff: Mr. Jean-Marie Hubart). According to the Web site "Biodiversity Resources in Belgium" (*http://www.br.fgov.be/BIODIV/*), the Laboratoire houses a collection of cave animals, including millipedes from Belgium (Dethier, 1998). The following institutions do not house millipede collections (confirmed by Dr. D. Van den Spiegel [MRAC]): Faculté universitaire des Sciences Agronomiques de Gembloux (Unite de Zoologie Generale et Appliquée, Prof. Charles Gaspar, Passage des Deportes 2, B-5030 Gembloux [FSAG]; curatorial staff: Prof. G. Pierrard), Musée de Zoologie (Université de Liege, Institut de Zoologie, Quai van Beneden 22, B-4020 Liege [IEVB]; curatorial staff: Dr. Ruwer), and Collection du Laboratoire d'Ecologie (Place Croix du sud No. 5, B-1348 Louvain-la-neuve [ECOL]; curatorial staff: Prof. P. Lebrun).

Institut Royal des Sciences Naturelles de Belgique, Département Entomologie, rue Vautier 29, B-1000 Bruxelles (ISNB)

Curatorial Staff: Dr. Jérôme Constant
Phone: 32-2-6274134
Fax: 32-2-6274132
E-mail: Jerome.Constant@naturalsciences.be

Types: 78 lots (Attems; Carl; Porat; Silvestri). Type lots are not separated from the main collection. Collection: unspecified number of lots; backlog partly identified to order. Collection is arranged alphabetically by genus. Specimens are stored in 70% ethanol; labels are handwritten or typed. Electronic collection catalog is taxon based in relational database. Available at: *http://www.natuurwetenschappen.be/collections/entomo/diplopoda.htm.* Estimated collection growth: 20 to 50 lots per year.

Royal Africa Museum, B-3080 Tervuren (MRAC)

Curatorial Staff: Dr. Didier Van den Spiegel
Phone: 32-2-7695411
Fax: 32-2-7695695
E-mail: dvdspiegel@africamuseum.be

Types: 1,005 lots: 141 holotypes, 364 paratypes, 486 syntypes, 1 allotype, 6 lectotypes, 7 paralectotypes (Attems; Demange; Demange & Mauriès; Hoffman; Hoffman & Howell; Jocqué; Kraus; Mauriès; Van den Spiegel; Van den Spiegel & Hoffman). Types are not separated from the formed collection, but all holotypes and paratypes are clearly marked with colored labels (red and blue, respectively). Currently, no type catalog is available. Collection: 19,000 lots (est.): 18,398 identified at least to family; specimens in backlog partly identified to order. Collection is arranged alphabetically by family. Specimens are stored in ethanol; labels are handwritten or dot-matrix printed. Collection is cataloged. The catalog is computerized (specimen-based relational database). Individual lot numbers have been assigned. Extensive holdings from Africa. Associated collections: actively growing reprint collection. Estimated collection growth: 100 lots per year.

BERMUDA

No contact was established with Bermuda Department of Agriculture and Fisheries (Botanical Gardens, P.O. Box HM 834, Hamilton 5).

Bermuda Natural History Museum and Aquarium, P.O. Box, Hamilton (BAMZ)

Curator: Dr. Wolfgang Sterrer
Phone: 1-441-2932727
Fax: 1-441-2933176
E-mail: wsterrer@sargassbbsr.edu

Types: none. Six lots, two identified at least to family. Collection is arranged systematically. Specimens are stored in 75% ethanol; collection labels are handwritten. Collection is not cataloged. All specimens from Bermuda. Estimated collection growth: one lot per year.

BOLIVIA

Centro de Biodiversidad y Genética (Universidad Mayor de San Simón, P.O. Box 538, Cochabamba; curatorial staff: Dr. Luis F. Aguirre; e-mail:

laguirre@fcyt.umss.edu.bo) does not house a millipede collection.

Colección Boliviana de Fauna, Museo Nacional de Historia Natural, Calle 27 Cota Cota, La Paz (CBFC)

Curatorial Staff: Dr. Jaime Sarmiento/Nohelia Mercado
Phone: 591-2-792582/795364
E-mail: iecbf@ceibo.entelnet.bo

Types: none. Collection: 163 lots: 28 lots identified to family level; 135 lots partly identified to order in backlog. Specimens are stored in 70% ethanol; collection labels are printed with a laser printer. Collection is arranged systematically and geographically. Collection is cataloged and computerized. Holdings from the Neotropics.

BOTSWANA

No contact was established with National Museum and Art Gallery (Churchill Road, Independence Avenue, P.O. Box 131, Gaberone).

BRAZIL

No contact was established with Museum of Entomology (Universidade Federal de Viçosa, 36.750 Viçosa, Minas Gerais). Museu de Entomologia Pe. Jesus Santiago Moure (Universidade Federal do Paraná, Departamento de Zoologia, C.P. 19020, 81531-970 Curitiba, PR [DZUP]; curatorial staff: Ms. Maria Christina de Almeida) does not house a millipede collection.

Instituto Nacional de Pesquisas da Amazônia, Av. André Araújo, 2936—Bairro Petrópolis, 69060-001 Manaus, Amazonas (INPA)

Curatorial Staff: Dr. Célio Magalhães
Phone: 55-92-6433146
Fax: 55-92-6433146
E-mail: celiomag@inpa.gov.br

Types: 145 lots (Golovatch; Hoffman). Types are not separated from the formed collection. No type catalog is available. Collection: 193 lots (count): 173 lots identified to family; 20 lots partly identified to order. Specimens are stored in 70% ethanol; collection labels are handwritten. Collection is arranged alphabetically by family. The formed collection is cataloged and computerized (lot- or specimen-based flat file). Individual lot numbers have been assigned. Holdings from the Neotropics. Associated collections: electronically cataloged reprints, microscope slides, and bulk samples. Estimated collection growth: 16 lots per year.

Federal University of Mato Grosso, Av. Fernando Correa da Costa s/n Bioscience Institute—Department of Biology and Zoology, Cuiabá, Mato Grosso 78060-900 (UFMI)

Curatorial Staff: Dr. Marinêz Isaac Marques
E-mail: m.marque@terra.com.br

Types: one type lot (Hoffman). Types are not separated from the formed collection. Collection: unspecified number of lots; backlog partly identified to order. Specimens are preserved in ethanol; collection labels are handwritten. The formed collection is partly cataloged in catalog books. Holdings from the Pantanal of Mato Grosso, Brazil (Neotropics).

Museu Paraense Emílio Goeldi, Coodenação de Zoologia, Campus de Pesquisa, Av. Perimetral, Guamá, Belém, Pará 66040-170 (MPEG)

Curatorial Staff: Alexandre Bonaldo
Phone: 55-91-2176110
Fax: 55-91-2490466
E-mail: bonaldo@museu-goeldi.br

Types: one lot (Golovatch, Vohland & Hoffman). Types are separated from the formed collection. Collection: 800 lots (est.): 100 lots identified to family. Specimens are stored in 80% ethanol. Provisional labels for collection are printed on an inkjet printer, and definitive labels are photocopied from provisional labels. Collection is arranged by family. The formed collection is partly cataloged and computerized (lot- or specimen-based relational database). Individual lot numbers have been assigned. Holdings from the Neotropics. Estimated collection growth: 100 lots per year.

Museu de Ciencias Naturais da Fundaçao Zoo-Botânica do Rio Grande do Sul, Av. Dr. Salvador Franca, 1427 C.P. 1188, 90.000 Porto Allegre, RS (MCNZ)

Curatorial Staff: Erica Helena Buckup
Phone: 55-51-3361511 Ramal [ext] 155
Fax: 55-51-3363306
E-mail: Erica@fzb.org.br

Types: none. Collection: 440 lots (count). Speci-

mens are stored in 80% ethanol; labels are handwritten. Collection is cataloged in catalog books. Individual lot numbers have been assigned. All material from the Neotropics.

Museu de Zoologia, Universidade de São Paulo, Avenida Nazare, 481, São Paulo, 04263-000, São Paulo (MZSP)

Curatorial Staff: Dr. Jose Luis Moreira Leme/ Dr. Luis Ricardo Simone
Phone: 55-11-61658129
Fax: 55-11-61658108
E-mail: lrsimone@usp.br

Types: 166 lots (Brolemann; Golovatch; Hoffman; Schubart). Types are not separated from the formed collection. A type catalog is available from the curator. Collection: 96 drawers (40 × 50 cm) with snap-cap glasses. All specimens in backlog are identified to order. Collection labels are either handwritten or typed. The formed collection is partly cataloged in catalog books. Holdings mainly from the Neotropics, and some are from the Nearctic and Europe. Associated collections: historical reprint collection.

Museu Nacional—UFRJ, Quinta da Boa Vista s/n, São Cristóvão, 20.940-040 Rio de Janeiro, RJ (MNRJ)

Curatorial Staff: Dr. Adriano B. Kury
Phone: 55-21-25688262
E-mail: adrik@alternex.com.br

Types: 14 lots (Schubart). Types are separated from the formed collection. Type catalog is forthcoming. Collection: 575 lots (est.): 325 lots (count) identified to family; 250 lots in backlog partly identified to order. Specimens are stored in 75% ethanol; collection labels are either printed with a laser printer or handwritten. Collection is arranged in systematic order. The formed collection is cataloged and computerized (lot- or specimen-based flat file). Individual lot numbers have been assigned. Holdings mainly from the Neotropics; some specimens from the Nearctic, Europe, Southeast Asia, and southern Africa. Associated collections: historical reprint collection (electronically cataloged).

BULGARIA

National Museum of Natural History Tzar Osvoboditel Boulevard 1, 1000 Sofia (SOFM)

Curatorial Staff: Dr. Pavel Stoev
Phone: 359-2-9873680
E-mail: stoev@nmnh.bas.bg

Types: 69 lots (Enghoff; Golovatch; Hoffman; Mauriès; Mauriès, Golovatch, & Stoev; Mauriès & Heymer; Mikhaljova & Kim; Shear; Stoev & Enghoff; Strasser; Verhoeff). Types are separated from the collection, and a type catalog is available (Stoev & Beron, 2001). Collection: about 3,000 lots: 1,000 identified to family; 2,000 in backlog. Backlog is partly identified to order. Specimens are stored in 70% ethanol, and some are dried; collection labels are handwritten, typed, and laser printed. Collection is arranged alphabetically by genera within families and orders. The collection is computerized (species-based flat file; publication online forthcoming). Extensive holdings from the Palearctic, Oriental and Ethiopian regions, Middle America, and the Pacific Islands (New Guinea); some material from the Neotropics. Focus is on cave-dwelling millipedes and those from high altitudes from several regions. Associated collections: actively growing reprint collection and historical microscope slide collection. Estimated collection growth: 200 lots per year.

CANADA

No contact was established with Plant Sciences, Alberta Environmental Center (Vegreville, AB T0B 4L0); Insect Reference Collection (Forest Insect and Disease Survey, Newfoundland Forest Research Centre, Environment Canada, P.O. Box 6028, St. Johns, NL AIC 5X8); Insectry (Nova Scotia Department of Natural Resources, R.R. #1, Belmont NS BOM ICO); Biology Department, McMaster University (1280 Main Street, West Hamilton, ON L8S 4K1); Insect Collection (Department of Biology, University of Laval, Quebec, PQ GIK 7P4); Agriculture Canada, Regina Research Station (5000 Wascana Parkway, P.O. Box 440, Regina, SK S4P 3A2); London Research Centre (Agriculture Canada, 1400 Western Road, London, ON N6G 2V4); Forest Insect and Disease Survey Reference Collection, Forestry Canada—Maritimes Region (P.O. Box 4000, Fredericton, NB E3B 5P7); A. D. Picket Entomological Museum and Research Laboratory (Department of Biology, Nova Scotia Agricultural College P.O. Box 550, Turo NS B2N 5E3); and Newfoundland Insectarium (P.O. Box 476, Trans Canada Highway, Deer Lake NL A0K 2E0).

Alberta

The following institutions do not house millipede collections: Centre Natural and Human Sciences (Athabasca University, Athabasca, AB T9S 3A3; curatorial staff: Dr. Robert Holmberg), Provincial Museum of Alberta (12845 102nd Avenue, Edmonton, AB T5N 0M6 [PMAE]; curatorial staff: Terry Thormin), and Agriculture and Agri-Food Canada (Research Center, P.O. Box 3000, Lethbridge, AB A8, T1J 4B1 [AGRL]; curatorial staff: J. R. Byers).

Northern Forestry Centre Arthropod Collection, Canadian Forest Service, 5320-122 Street, Edmonton AB T6H 3S5 (NFRC)

Curatorial Staff: Greg Pohl
Phone: 1-780-4357211
Fax: 1-780-4357211
E-mail: gpohl@nrcan.gc.ca

Types: none. Collection: 10 lots (est.): all unidentified. Specimens are stored in 70% ethanol; collection labels are printed with a dot-matrix printer or handwritten. Collection is not cataloged. All material from the Nearctic. Associated collections: historical microsope slides and actively growing reprint, photograph, print, slide, and bulk sample collections. Estimated collection growth: two lots per year.

E. H. Strickland Entomological Museum, Department of Biological Sciences, CW405 Biological Sciences Building, University of Alberta, Edmonton AB T6G 2E9 (UASM)

Curatorial Staff: Dan Shpeley
E-mail: dshpeley@gpu.srv.ualberta.ca

Types: none. Very small unidentified collection, mostly from México.

British Columbia

The Department of Biology (University of Victoria, Victoria, BC V8W 2Y2; curatorial staff: Dr. Neville Winchester; small teaching collection) does not house a millipede collection.

Spencer Museum, Department of Zoology, University of British Columbia, 6270 University Boulevard, Vancouver, BC V6T 1Z4 (SMDV)

Curatorial Staff: Dr. Karen Needham
Phone: 1-604-8223379
Fax: 1-604-8222416
E-mail: needham@zoology.ubc.ca

Types: none. Collection: 43 vials: 30 vials identified to family; 13 vials in backlog. Specimens are stored in 70% ethanol; collection labels are printed with a laser printer, typed, or handwritten. Collection is arranged in alphabetical order of families. Collection is not cataloged. Associated collections: none. Holdings from western North America. Estimated collection growth: one lot per year.

Terrestrial Invertebrate Collection, Royal British Columbia Museum, 675 Belleville Street, Victoria, BC V8W 9W2 (BCPM)

Curatorial Staff: Dr. Rob Cannings
Phone: 1-250-3568242
Fax: 1-250-3568197
E-mail: RCannings@royalbcmuseum.bc.ca

Types: 10 lots (Chamberlin; Shelley). Types are separated from the formed collection. A type catalog is available at *http://www.royalbcmuseum.bc.ca/research-collectionsdept/nat-hist/papers/typelist/typelist.html.* Collection: 420 lots (est.): 170 lots (est.) identified to family level; 250 lots (est.) in backlog. Specimens are stored in 70% ethanol; collection labels are either printed with a laser printer or handwritten. Collection is arranged in alphabetical order of families. Collection is partly cataloged and computerized. Individual lot numbers have been assigned. Holdings from western North America. Estimated collection growth: five lots per year.

Manitoba

Manitoba Museum, 141 Leila Avenue, Winnipeg, MB R2V R3B (MMMN)

Curatorial Staff: Dr. Gavin Hanke/Janis Klapecki
Phone: 1-204-9562830
Fax: 1-204-9423679
E-mail: jklapecki@manitobamuseum.ca

Contains the Criddle Reference Collection of local insects from the late 1800s. Types: none. Collection: fewer than eight lots: all identified to family by Dr. Rowland Shelley (NCSM). Collection labels are handwritten. Collection is not currently cataloged but will be in the future.

J. B. Wallis Museum, 213 Animal Science Building, University of Manitoba, Winnipeg, MB R3T 2N2 (JBWM)

Curatorial Staff: Dr. R. E. Roughley
Phone: 1-204-4746023
Fax: 1-204-4747628
E-mail: rob_roughly@umanitoba.ca

Types: none. Small millipede collection. Specimens are stored in 70% ethanol. All holdings from Canada. Most specimens were collected from pitfall trap samples on tallgrass prairie.

New Brunswick

The following institutions do not house millipede collections: Agriculture Canada Research Station (P.O. Box 20280, Fredericton, NB E3B 4ZT [ACNB]; curatorial staff: Dr. Giles Boiteau) and Department of Forest Resources (University of New Brunswick, P.O. Box 4400 Fredericton, NB E3B 5A3 [DFRU]; curatorial staff: Dan Quiring).

New Brunswick Museum, 277 Douglas Avenue, St. John, NB E2K 2E5 (NBMB)

Curatorial Staff: Donald McAlpine
E-mail: dmcalpin@nb.aibn.com

No millipede collection. Note: The museum houses fossil millipedes from the Carboniferous.

Newfoundland

The following institutions do not house millipede collections: Insect Reference Collection (Newfoundland Department of Forestry, Forest Protection Division, P.O. Box 2006, Herald Building, Corner Brook, NL A2H 6J8 [NDFC]; curatorial staff: Shiyou Li) and Insect Collection (Biology Department, Memorial University of Newfoundland, St. Johns, NL AIC 5S7 [MUNC]; curatorial staff: Dr. D. J. Larson).

Ontario

The following institutions do not house millipede collections: Department of Biological Sciences (University of Windsor, Windsor ON N9B 3P4 [BDWC]; curatorial staff: Dr. Jan Ciborowski), Department of Zoology Collection (Biological and Geological Sciences Building, University of Western Ontario, London, ON N6A 5B7 [UWOC]; curatorial staff: Dr. W. W. Judd), Forest Insect and Disease Survey (Great Lakes Forest Research Laboratory, Box 490, Sault Ste. Marie, ON P6A 5M7 [FIDS]; curatorial staff: Kathryn Nystrom), Biological Survey of Canada (Terrestrial Arthropods, Canadian Museum of Nature, P.O. Box 3443, Station D, Ottawa, ON K1P 6P4; curatorial staff: Dr. Hugh V. Danks; the Biological Survey is a coordinating group and does not itself hold collections), Ontario Hydro (Biological Research Section, 00 Kipling Avenue KD 118, Toronto, ON M8Z 5S4 [OHBR]; data courtesy of S. A. Marshall [DEBU]), and Prince Edward Island Agriculture Canada Research Station (P.O. Box 1210, Charlottetown, PE CIA 7M8 [APEI]; curatorial staff: Dr. Christine Noronha).

Department of Entomology, Royal Ontario Museum, 100 Queen's Park, Toronto, ON M5S 2C6 (ROME)

Curatorial Staff: Brad Hubley
Phone: 1-416-5865764
Fax: 1-416-5865553
E-mail: bradh@rom.on.ca

Types: none. Collection: 400 lots (est.): 200 lots identified to family; 200 lots partly identified to order in backlog. Specimens are stored in 80% ethanol; collection labels are printed with a laser printer, typed, or handwritten. Collection is arranged alphabetically by order, family, genus, and species. The formed collection is cataloged in accession records and computerized (lot- or specimen-based relational database). Holdings from the Nearctic, Central America, the Neotropics, and Southeast Asia. Associated collections: historical reprint and actively growing bulk sample collections. Estimated collection growth: five lots per year.

Department of Environmental Biology, University of Guelph, Guelph, ON NIG 2WI (DEBU)

Curatorial Staff: Dr. Matthias Buck/Dr. S. A. Marshall
Phone: 1-519-8244120 ext. 52582
Fax: 1-519-8370442
E-mail: mbuck@evb.uoguelph.ca, samarsha@uoguelph.ca
Web site: *http://www.uoguelph.ca/~samarsha*

Types: none. Collection: 100 lots: all from Ontario and all identified by Dr. Rowland Shelley (NCSM). Specimens are stored in 70% ethanol; collection labels are handwritten. Collection is not cataloged. Associated collections: actively growing photograph, print, and slide collections.

Canadian National Collection of Insects, ECORC, Research Branch, Ottawa, ON KIA OC6 (CNC)

Curatorial Staff: Dr. Charles Dondale (emeritus)

Phone: 1-613-7591812
E-mail: cdond@istar.ca

Types: none. Collection: 70 lots (est.) in backlog. Specimens are stored in 75% ethanol; collection labels are handwritten and typed (with alcohol-proof ribbon). Collection is not cataloged. All material from the Nearctic. Collection growth: none.

General Invertebrate Collection, Canadian Museum of Nature, P.O. Box 3443, Station D (1740 Pink Road, Aylmer, QC J9H 5E1) Ottawa, ON K1P 6P4 (CMNI)

Curatorial Staff: Jean-Marc Gagnon
Phone: 1-613-3644066
Fax: 1-613-3644027
E-mail: jmgagnon@mus-nature.ca

Types: none. Collection: 565 lots (count): 441 lots identified to family; 124 lots in backlog. Specimens are stored in 70% ethanol; collection labels are either printed with a laser printer or handwritten (most printed on laser, then copied on photocopier with liquid toner). Collection is arranged alphabetically by diplopod order. The formed collection is partly cataloged in catalog books, accession records, and computerized (lot- or specimen-based relational database). Individual lot numbers have been assigned. Holdings mainly from eastern North America; some specimens from western North America and the West Indies. Associated collections: none.

Quebec

The following institutions do not house millipede collections: Collection Entomologique Ouellet-Robert (Department of Biological Sciences, University of Montreal, C.P. 6128, Montreal, QC H3C 3J7 [QMOR]; curatorial staff: Dr. P. P. Harper) and Insect Collection (Natural History Museum, Bishop's University, Lennoxville, QC JIM IZ7 [ICBU]; curatorial staff: Dr. Don F. J. Hilton).

Lyman Entomological Museum, MacDonald College, McGill University, Macdonald Campus, Ste-Anne-de-Bellevue QC H9X 3V9 (LEMQ)

Curator: Stéphanie Boucher
Phone: 1-514-3987914
Fax: 1-514-3987990
E-mail: sboucher@nrs.mcgill.ca

Small, unidentified millipede collection, partially dry. Material from Costa Rica, Ecuador, Peru, and South Africa. No millipedes added to the collection during the past 20 years.

Saskatchewan

PFRA Tree Nursery (Indian Head, SK 5OG 2KO [PFRA]; curatorial staff: Dr. B. Neill) does not house a millipede collection.

Royal Saskatchewan Museum, 2340 Albert Street, Regina SK S4P 3V7 (SMNH)

Curatorial Staff: Mr. Keith Roney
Phone: 1-306-7872801
Fax: 1-306-7872645
E-mail: kroney@mach.gov.sk.ca

Types: none. Collection: 20 lots (est.): some identified to species. Labels are laser printed. Collection is not cataloged. All material from Saskatchewan.

CENTRAL AFRICAN REPUBLIC

No contact was established with Station Experimental de la Maboke par M'Baiki.

CHILE

According to Dr. Camousseight (MNNC), the millipede collection of Fransisco Silva disappeared after his passing in 1990. The following institutions do not house millipede collections (data courtesy of Dr. Camousseight and Tomás Cekalovic): Colección Entomológica del Instituto de Agronomia (Universidad de Tarapacá, Casilla 6 D, Arica [IDEA]; curatorial staff: Mauricio Jiménez R.), Inia Subestación Experimental de Control Biológico la Cruz (Casilla 3, La Cruz, VA. Region [INLA]; curatorial staff: Dr. Renato Ripa S.), Colección Nacional de Insectos (Museo Nacional de Historia Natural, Casilla 787, Santiago [MNNC]; curatorial staff: Dr. Ariel Camousseight, Dr. Fresia Rojas, and M.Sc. Mario Elgueta), Museo Entomológico (Facultad de Agronomía, Universidad Austral de Chile, Casilla 853, Valdivia [CFUA]; data courtesy of Mario Elgueta [MNNC]); and Universidad Católica de Valparaiso (Casilla 4059, Valparaiso [UCVC]; curatorial staff: Haroldo Toro).

Museo de Historia Natural de Valparaiso, Casilla 3208, Correo 3, Valparaiso (MHNV)

Curatorial Staff: Dr. Sergio O. Zunino
Phone: 56-32-257441
Fax: 56-32-220846
E-mail: mhnv@ctcinteret.cl

Types: none. A small number of unidentified lots. Collection is not cataloged. Labels are handwritten. All material from the Neotropics (Chile).

Museo de Zoología, Universidad de Concepción, Casilla 2407-10, Concepción (UCCC)

Curatorial Staff: Dr. Jorge Artigas
E-mail: jartigas@udec.cl

Small millipede collection with some identified material (data courtesy of Tomás Cekalovic).

CHINA

No contact was established with Department of Plant Protection, North-West Agricultural University (Yanglingzhen, Shaanxi Province 712100); Department of Plant Protection, Beijing Agricultural University (Beijing 100094); Insect Collection, Forest Research Institute, Chinese Academy of Forestry (Beijing 100091); Beijing Natural History Museum (126 Tien Chaio Street, Beijing); China Entomological Research Institute Collection (105 Xingang West Road, Guangzhou, Guangdong Province); Insect Collection, Research Institute of Entomology, Zhongshan University (Guangzhou); Department of Plant Protection, Nanjing Agricultural University (Nanjing 210014); Laboratory of Taxonomy and Ecology Institute of Entomology and Museum of Shangai Institute of Entomology (Academia Sinica, 225 Chungking Road [S.], Shanghai 200025, Shangai Province); Department of Plant Protection, South-West Agricultural University (Chongqing 630716); Kunming Institute of Zoology (Academia, Kunming 650107); and Department of Plant Protection, Zhejian Agricultural University (Hangzhou 310029). According to Prof. Dr. Shuqiang Li (IZCAS), most of these are unlikely to harbor significant millipede collections. Biological Control Research Institute (Fujian Agricultural College, Shaxian, Fuzhou, Fujian 350002 [FACS]; curatorial staff: Prof. Dr. Lin Nai-quan) does not house a millipede collection.

Institute of Zoology, Chinese Academy of Sciences, 25 Bei-Si-Huan-Xi-Lu Street, Beijing, 100080 (IZCAS)

Curatorial Staff: Prof. Dr. Shuqiang Li/Meng Kaibayer
Phone: 86-10-62561874
Fax: 86-10-62577533
E-mail: lisq@panda.ioz.ac.cn

Types: about 40 lots (est.; Wang D.; Zhang; Zhang & Li). Types are separated from the rest of the collection, and a type catalog is available from the curator. Collection: 20,000 lots (est.): 18,000 lots identified to family; 2,000 lots in backlog identified to order. Specimens are stored in ethanol; collection labels are printed with a laser printer, typed, or handwritten. Collection is arranged systematically. The formed collection is not currently cataloged but is in the process of being cataloged and computerized. No individual lot numbers have been assigned. Holdings from Asia and Europe. Estimated collection growth: 50 lots per year.

The College of Life Sciences, 88 Hezuo Road, Baoding, 071002, Hebei Province, Department of Biology, Hebei University, Baoding, Hebei Province (CLSHU)

Curatorial Staff: Zhi-shun Song
Phone: 86-312-5015447
Fax: 86-312-5079627
E-mail: songzhishun123@sohu.com

Collection: 1,000 lots: all identified to order. Labels are handwritten. Holdings mainly from Asia and Oriental regions.

Insect Collection of Nankai University, Department of Biology, 94 Weijin Road, Tianjin 300071 (NKUM)

Curatorial Staff: Prof. Dr. Wenjun Bu
E-mail: wenjunbu@nankai.edu.cn

Teaching collection of millipedes.

COLOMBIA

No contact was established with Colección Entomológica "Luis María Murillo" (ICA, Tibaitatá, Apartado Aéreo 151123, El Dorado, Bogotá), Museo de Entomológica "Francisco Luis Gallego" (Departamento de Biología, Facultad de Ciencias, A.A. 3840, Medellín), and Colección Entomológica, Facultad de Ciencias Agropecuarias (Universidad Nacional de Colombia, Apartado Aereo 237, Palmira).

Universidad Nacional de Colombia, Instituto de Ciencias Naturales, Ciudad Universitaria, Apartado Aéreo 7495, Bogotá (ICNUN)

Curatorial Staff: Dr. Eduardo Florez Daza
Phone: 57-1-3165000 ext. 11544
Fax: 57-1-3165365
E-mail: eflorez@ciencias.unal.edu.co

Types: none. Collection: 500 lots (est.): 375 lots identified to family; 60 lots in backlog. Specimens are stored in 70% ethanol; collection labels are handwritten. Collection is arranged alphabetically by family. The formed collection is partly cataloged in catalog books and computerized (lot- or specimen-based flat file). Individual lot numbers have been assigned. Holdings from the Neotropics. Associated collections: historical and actively growing reprint collection (electronic catalog). Estimated collection growth: 50 lots per year. According to Dr. Florez, the Universidad Nacional de Colombia holds the only millipede collection of scientific interest in the country.

COSTA RICA

The following institutions do not house millipede collections (data courtesy of Zaidett Barrientos [INBC]): Museo Nacional de Costa Rica (Apartado 749-1000, San José [MNCR]; curatorial staff: Lorena San Ramón de Gallegos) and Museo de Insectos, Universidad de Costa Rica, Ciudad Universitaria [MUCR]; curatorial staff: Dr. Paul Hanson).

Instituto Nacional de Biodiversidad, Apdo. 22-3100, Santo Domingo, Heredia (INBC)

Curatorial Staff: Zaidett Barrientos
Phone: 506-244-0690 ext 792
Fax: 506-244-2816
E-mail: zbarr@inbio.ac.cr

Types: two (Chamberlin). Types are not separated from the formed collection. Collection: 1,000 lots (est.): 900 (est.) identified at least to family (collection is arranged alphabetically by family); 100 lots (est.) in backlog. Specimens are stored in 70% ethanol; collection labels are handwritten (from 2001 on the collection will have labels printed on plastic paper with alcohol-proof ribbon). Collection is cataloged in catalog books. The catalog is computerized (lot- or specimen-based flat file). Individual lot numbers are currently being assigned, and lots will be bar-coded. Holdings from Central America.

Museo de Zoología, Escuela de Biología, Universidad de Costa Rica, San Pedro, Montes de Oca, 2060 San José (MZCR)

Curatorial Staff: Rita Vargas
Phone: 506-207-4468
Fax: 506-207-4216
E-mail: mzucr@biologia.ucr.ac.cr,
ritav@biologia.ucr.ac.cr

Types: none. Collection: 138 lots (count): 75 identified to family; 63 in backlog identified to order. Specimens are stored in 70% ethanol; labels are handwritten. Collection is cataloged in catalog books and is computerized. All material from Central America.

CROATIA

Department of Zoology, Croatian Natural History Museum, Demetrova 1, HR-10 000 Zagreb (HZMZ)

Curatorial Staff: Ms. Martina Sasic
Phone: 385-1-4851700
Fax: 385-1-4851644
E-mail: Martina.Sasic@hpm.hr

Note: Formerly the Hrvatski Narodni Zooloski Muzej. Types: none. Collection: 554 lots (count): 553 lots identified to family; three jars identified to order in backlog. Specimens are stored in ethanol; collection labels are handwritten. Collection is arranged systematically. The collection is not cataloged. Holdings from Europe.

CUBA

Instituto de Zoología (Academia de Ciencias de Cuba, Capitolio Nacional, La Habana 2, Ciudad de la Habana [IZAC]; curatorial staff: Luis F. de Armas C.) does not house a millipede collection.

Museo Nacional de Historia Natural de Cuba, Obispo No. 61, Ciudad de la Habana, 10 100 (MNHC)

Curatorial Staff: Alina Lomba
Phone: 53-7-8639361
E-mail: cocuyo@mnhnc.inf.cu

Types: 22 lots (Pérez-Asso). Types are separated

from the formed collection. A type catalog is available from the curator. Collection: 3,388 lots: all except 20 identified to family. Specimens are stored in ethanol; collection labels are handwritten. Collection is not organized. The formed collection is cataloged in catalog books and computerized (taxon-based relational database). Individual lot numbers have been assigned. Associated collections: actively growing reprint collection. Holdings from the West Indies. Estimated collection growth: 10 lots per year.

CZECH REPUBLIC

No contact was established with Krajske Muzeum Vychodnich Cech (Husovo Namesti 124, Hradec Kralove 500 02), Ostravske Museum (Masarykovo namesti 1, 728 41 Ostrava), Muzeum Vychodnich Cech Eliscino Nabrezi (500 01 Hradec Kralove), and Regionalni Muzeum v Koline (Department of Natural Sciences, Brandlova 27, 280 02 Kolin). The following institutions do not house millipede collections: Karlovarske Museum (Zamecky vrch 22, 360 01 Karlovy Vary), Mestske Mudrunkovo vlastivedne muzeum v Ricanech (Rydlova 14/271, 251 01 Ricany u Prahy; curatorial staff: Jan Vit-Trcka), Okresni muzeum Sokolov (Zamecka 1, 356 05 Sokolov; curatorial staff: Dr. Jan Michalek); Okresni Vlastivedne muzeum Sumperk (Hlavni trida 22, 787 31 Sumperk), South Bohemian Museum in Ceske Budejovice (Department of Natural Sciences, Dukelska 1, 370 51 Ceske Budejovice; curatorial staff: Zdenek Kletecka), South Moravian Museum in Znojmo (curatorial staff: Dr. Antonin Reiter), Muzeum Beskyd Frydek-Mistek (Hluboka 66, 738 01 Frydek-Mistek; curatorial staff: Dr. Rohacova), and West Bohemian Museum in Plzen (Department of Zoology, Tylova 22, 306 37 Plzen; curatorial staff: Dr. Roman Vacik).

Slezské zemske museum, Dept. of Entomology Tyrsova 1, 746 46 Opava (SMOC)

Curatorial Staff: Dr. Jindrich Rohacek
Phone/Fax: 420-553622999
E-mail: szmoprir@iol.cz, szmred@szmo.cz
Web site: *http://www.szmo.cz*

Small millipede collection, all specimens dry.

National Museum, Department of Zoology, Václavské nám. 68, 115 79 Praha 1 (NMPC)

Curatorial Staff: Dr. Antonín Kůrka
Phone: 420-224497252
E-mail: akurka@seznam.cz
Web site: *http://www.nm.cz*

Types: none. Collection: 1,330 lots: 330 lots identified to family; 1,000 lots identified to order in backlog. Specimens are stored in ethanol. Collection labels are typed or handwritten. Collection is arranged systematically. The formed collection is partly cataloged in catalog books. Individual lot numbers have been assigned. Note: The museum houses Carboniferous and Mesozoic fossil millipede material (e.g., voucher material of fossil millipedes described by Fritsch in "Die Fauna der Gaskohle") in the Department of Palaeontology (curator: Dr. Vojtìch Turek).

Moravske zemske museum [Moravian Museum], Department of Entomology, Hviezdoslavova 29a, 627 00 Brno (MMBC)

Curatorial Staff: Jiri Kolibac
E-mail: ento.kol@volny.cz

Types: none. Collection: 100 lots: 30 lots identified to family. Collection labels are handwritten. Holdings from the Palearctic and western Africa.

DENMARK

Natural History Museum, Universitetsparken, DK-8000 Århus (NHMA)

Curatorial Staff: Dr. Peter Gjelstrup
Phone: 45-86-129777
Fax: 45-86-130882
E-mail: pg@nathist.aau.dk
Web site: *http://www.naturhistoriskmuseum.dk*

Types: none. Collection: 3,000 lots (est.): 300 lots (est.) identified to family; 2,700 lots partly identified to order in backlog. Specimens are stored in 70% ethanol; collection labels are handwritten. The formed collection is partly cataloged. No individual lot numbers have been assigned. Extensive holdings from Europe; some specimens from Mediterranean countries/northern Africa.

The Natural History Museum of Denmark, University of Copenhagen, Universitetsparken 15, DK-2100 København ø (ZMUC)

Curatorial Staff: Dr. Henrik Enghoff
Phone: 45-35321103
Fax: 45-35321010
E-mail: henghoff@zmuc.ku.dk

Web site: *http://www.zmuc.dk/*

Types: 198 lots (Carl; Chamberlin; Demange; Enghoff; Golovatch; Golovatch & Enghoff; Hoffman; Hoffman & Howell; Jeekel; Krabbe; Krabbe & Enghoff; Mauriés; Meinert; Nguyen Duy-Jacquemin & Condé; Read; Schiotz; Schubart; Silvestri). Types are separated from the formed collection. No separate type catalog is available, but types are marked on species list in online species-based catalog at *http://www.zmuc.dk/EntoWeb/collections-databaser/diplo.html.* Collection: 15,000 lots (est.): fewer than 750 lots (est.) in backlog; most of the backlog is identified to order. Specimens are stored in 70% ethanol; collection labels are handwritten, dot-matrix printed, or typed. Collection is arranged systematically with Danish material in separate collection. Eighty-five millipede families are represented. Extensive holdings from Europe, Mediterranean/northern Africa, Southeast Asia, and western and eastern Africa; some material from the Nearctic, Central America, the Neotropics, India, southern Africa, Australia, New Zealand, and the Pacific Islands. Associated collections: actively growing reprint collection and microscope slide collection.

DOMINICAN REPUBLIC

No contact was established with Museo Nacional de Historia Natural (Plaza de Cultura, Santo Domingo). According to Antonio Pérez-Asso (e-mail: hparaiso@caribe.net), there are no millipede collections in the Dominican Republic.

ECUADOR

No contact was established with Quito Catholic Zoological Museum (Department de Biologia, Pontificia Universidad Catolica del Ecuador, 12 de Octubre y Carrión, Apartado 2184, Quito), Insect Collection (Charles, Galapagos), and Darwin Research Station (Puerto Ayora, Santa Cruz).

EGYPT

Entomological Society Museum, 14 Sharia Ramses, Cairo (ESEC)

Curatorial Staff: unknown

According to Dr. Hisham El-Hennawy, there is currently no millipede collection, but plans are under way to build a collection.

ETHIOPIA

No contact was established with Natural History Museum (Haile Selassie I University, Addis Ababa).

DOMINION OF FIJI

No contact was established with The Entomologist, Ministry of Primary Industries (Koronivia Research Station, Nausori), and Insect Collection, Department of Biology (School of Natural Resources, University of the South Pacific, P.O. Box 1168, Laucala Bay, Suva). According to Tino Gonsalves (BPBM), there are no millipede collections in Fiji.

FINLAND

Finnish Museum of Natural History, Zoological Museum, P.O. Box 17 (P. Rautatiekatu 13), FIN-00014 University of Helsinki (MZHF)

Curatorial Staff: Dr. Juhani Terhivuo
Phone: 358-9-19128844
Fax: 358-9-19128843
E-mail: juhani.terhivuo@helsinki.fi
Web site: *http://www.fmnh.helsinki.fi/*

Type lot: one (*Trichopetalum jawlowskii* Palmèn, 1951). Collection: 1,970 lots (est.): 1,150 lots (est.) identified at least to family; 820 lots (est.) in backlog. Specimens are stored in 70% ethanol; collection labels are handwritten. Collection is arranged alphabetically by genus. Collection is separated into material from Finland and from other regions. Manual species-level collection catalog. Holdings mainly from the Nearctic, the Palearctic, and Oriental and Ethiopian regions. Associated collection: historical microscope slide collection. Collection growth: up to 10 lots per year.

FRANCE

Collections of fossil millipedes are housed in the Musée d'Histoire Naturelle in Autun and the Musée des Fossiles in Monteau-les-Mines (see the Results section) and most likely also in the Mu-

séum National d'Histoire Naturelle in Paris. The following institutions do not house millipede collections: Musée d'Histoire Naturelle de Lyon (28 Blvd Des Belges, F-69006 Lyon, Rhone [MHNL]; curatorial staff: Prof. Janine Gibert) and Laboratoire de Biologie des Insectes (118 Route de Narbonne, F-31077 Toulouse [LBIT]; curatorial staff: Prof. Dr. Jacques Bitsch; the laboratory does not exist anymore; data courtesy of Prof. Louis Deharveng [MNHN]; e-mail: deharven@mnhn.fr).

Muséum National d'Histoire Naturelle, Laboratoire de Zoologie (Arthropodes) du M.N.H.N. 61 rue de Buffon, F-75005 Paris (MNHN)

Curator: Monique Nguyen Duy-Jacquemin/
Jean-Jacques Geoffroy
Phone: 33-1-40793582
Fax: 33-1-40793863
E-mail: monguyen@mnhn.fr,
geoffroy@mnhn.fr
Web site: *http://www.mnhn.fr/*

Types: about 2,000 lots (est.; Abrous-Kherbouche & Mauriès; Attems; Beauvois; Berlese; Borre; Bouvier; Brolemann; Brolemann & Brade-Birks; Brolemann & Verhoeff; Condé & Demange; Demange; Demange & Mauriès; Gervais; Gervais & Goudot; Humbert & DeSaussure; Jeekel; Latzel; Lucas; Mauriès; Mauriès & Barraqueta; Mauriès & Enghoff; Mauriès, Golovatch, & Stoev; Mauriès & Heymer; Mauriès & Karamaouna; Mauriès & Maurin; Mauriès & Nguyen Duy-Jacquemin; Mauriès & Silva; Mauriès & Vicente; Nguyen Duy-Jacquemin; Pocock; Ribaut; Schubart; Strasser; Vicente & Mauriès). Types are not separated from the formed collection. Type catalog is forthcoming. Collection: 15,000 jars (150,000 vials) (est.): 10,000 jars (100,000 vials) identified to family level; 5,000 jars partly identified to order in backlog. Specimens are stored in 75% alcohol; collection labels are handwritten, typed, and printed with both laser and dot-matrix printers. Successive labels are maintained in the vials and jars, showing the history of the identification. Collection is arranged taxonomically, and jars and vials are numbered. The formed collection is partly cataloged in catalog books and partially computerized (lot- or specimen-based relational database). Individual lot numbers have been assigned. Holdings are worldwide in scope, with particularly extensive material from western and central Africa, the Indo-Pacific Islands, Indochina, Madagascar and adjacent archipelagos, South and Central America, and the Caribbean. The collection contains voucher material by Attems, Brolemann, Demange, Enghoff, Gervais, Golovatch, Hoffman, Kime, Kraus, Lucas, Mauriès, Read, Shear, Verhoeff, and Vicente. Associated collections: actively growing microscope slide, photograph, print and slide, and bulk sample collections and an extensive historical and actively growing reprint collection (electronically cataloged). Iconographie: millipede species catalog on index cards, begun by Brolemann (see: *http://www.mnhn.fr/assoc/myriapoda/ICONOHWB.HTM*). A duplicate set of the Iconographie is available at the Field Museum of Natural History (FMNH, Chicago, USA). Estimated collection growth: 50 lots per year.

CNRS, Museum National d'Histoire Naturelle I. E. G. B., Laboratoire d'Ecologie Générale, 4 Avenue du Petit Chateau, F-91800 Brunoy (BFIC)

Curatorial Staff: Dr. Jean-Jacques Geoffroy
Phone: 33-1-60479222
Fax: 33-1-60465719
E-mail: geoffroy@mnhn.fr

Types: none. Collection: 2,500 lots (count) (about 25,000 specimens): 1,500 lots identified at least to family level; 1,000 lots (est.) in backlog. Specimens are stored in 75% ethanol; collection labels are handwritten or laser printed. Collection is arranged systematically. Unidentified lots arranged are geographically. Collection is partly computerized (lot-based relational database). Extensive holdings from Europe and Mediterranean/northern Africa; some material from the Nearctic, Central America, Asia, Oriental regions, western and eastern Africa. Associated collections: actively growing reprint and photograph, print, and slide collection. Estimated collection growth: 50 lots per year.

Muséum Aquarium of Nancy, 34, rue Sainte Catherine, F-54000 Nancy (MANF)

Curatorial Staff: Prof. Jean Brun-Bellut
Phone: 33-3-83329997
Fax: 33-3-83366003
E-mail: all-man@man.uhp-nancy.fr,
brunbell@ensaia.inpl-nancy.fr

Types: several lots of Polyxenida described by Condé & Jacquemin, Condé & Terver, and Marquet & Condé (data courtesy of Dr. Nugyen–Duy-Jacquemin).

FRENCH GUIANA

No contact was established with Department of Entomology, Office de la Recherche Scientifique et Technique D'Outre-Mer (Boite Postal 165, 97305 Cayenne Cedex).

GEORGIA

According to Dr. S. I. Golovatch (IPEE), a small millipede collection may be housed in the Museum of Georgia, Tbilisi (Dr. A. M. Gegechkori). No contact was established with Museum or the Plant Protection Institute (Tbilisi).

GERMANY

Germany recently formed the "Zentralregister biologischer Forschungssammlungen in Deutschland" (ZEFOD) (Inventory of biological research collections in Germany). ZEFOD aims at providing a structural and content-oriented description of biological collections in Germany online with continuous updates (*http://ice.zadi.de/zefod/index.html*). (Zoologisches Forschungsinstitut und Museum Alexander Koenig, Dr. Irina Brake, Dr. Karl-Heinz Lampe, Adenauerallee 160, 53113 Bonn, tel: 0228/9122-285, fax: 0228/9122-291; e-mail: i.brake.zfmk@uni-bonn.de; web site: *http://ice.zadi.de/zefod/sammlungen_2.cfm*). A list of biological collections in Germany can also be found on the Web site of the Biological Research Collections in Germany (Biologische Sammlungsobjekte in Deutschland at *http://www.biologie.uni-ulm.de/museum/*). No contact was established with Löbbecke-Museum und Aquazoo (Postfach 10 11 20, Kaiserswerther Str., D-40474 Düsseldorf); Institut für Zoologie, Universität-Erlangen-Nürnberg (Universitätsstrasse 19, D-91054 Erlangen); and Museum der Natur Gotha (Parkallee 15, Postfach 217, D-99867 Gotha). The following institutions do not house millipede collections: Insect Collection (Staatliches Naturhistorisches Museum, Pockelstrasse 10A, D-38106 Braunschweig [SNMB]; curatorial staff: Dr. Jürgen Hevers), Insektensammlung des Natur-Museums der Coburger Landesstiftung (Park 6, D-96450 Coburg [NMCL]), Hessisches Landesmuseum Darmstadt (Zoologische Abteilung, Friedensplatz 1, D-64283 Darmstadt [HLMD]; curatorial staff: Dr. Wolfgang Schneider), Deutsches Entomologisches Institut (Schicklerstr. 5, D-16225 Eberswalde-Finow [DEI]; curatorial staff: Prof. Dr. H. H. Dathe), and Museum für Naturkunde (Gerberau 32, D-79098 Freiburg im Breisgau, Baden-Württemberg [MNFD]; data courtesy of Dr. Peter Weygoldt, University of Freiburg, Germany).

Museum für Naturkunde der Humboldt Universität zu Berlin, Bereich Zoologisches Museum, Invalidenstrasse 43, D-10115 Berlin (ZMB)

Curatorial Staff: Dr. Jason Dunlop/Dr. Shahin Nawai
Phone: 49-30-20938516
Fax: 49-30-20938528
E-mail: Jason.Dunlop@museum.hu-berlin.de
Web site: *http://www.museum.hu-berlin.de*

Types: 1,792 lots (Attems; Berlese; Brandt; Carl; Cook; DeSaussure; DeSaussure & Zehntner; Erichson; Gerstäcker; Karsch; C. L. Koch; L. Koch; Latzel; Leach; Lignau; Lohmander; Menge; Peters; Ribaut; Rothenbühler; Schubart; Silvestri; Strasser; Verhoeff). Types currently are not separated from the formed collection; organizational changes are forthcoming, likely to database types through the GBIF project. Complete type catalogs are available (Mortiz & Fischer, 1973, 1974, 1975, 1978a, 1978b, 1979). Collection: 17,000 lots (est.) identified to family: 900 jars (est.) in backlog. Specimens are stored in 70% ethanol; collection labels are handwritten or laser printed. Collection is arranged systematically. Collection is cataloged on file cards and in catalog books; individual lot numbers have been assigned. Extensive holdings from Europe, Mediterranean/northern Africa, Southeast Asia, and Ethiopian regions; some holdings are from the Nearctic, Asia, and Central America. Associated collections: historical and current reprint collection (about 1,900 references, all databased in EndNote) and microscope slide collection (Verhoeff and Schubart material form separate slide collection). Estimated collection growth: less than one lot per year. Note: Types of fossil millipedes described by Koch & Berendt and other fossil millipede material are housed in Geologisch-Paläontologische Abteilung of the Museum.

Zoologisches Forschungsinstitut und Museum "Alexander Koenig," Adenauerallee 160, D-53113 Bonn 1 (ZFMK)

Curatorial Staff: Bernhard A. Huber (Dr. Franz Krapp, emeritus)
Phone: 49-228-9122294

Fax: 49-228-9122212
E-mail: b.huber.zfmk@uni-bonn.de

Types: none. Collection: 70 lots (est.), none identified. Specimens are stored in 70% ethanol; collection labels are handwritten. Collection is arranged by lot number. Collection is not cataloged. Holdings from Europe and western Africa. Associated collections: historical reprint collection. Estimated collection growth: none.

Übersee-Museum Bremen, Bahnhofsplatz 13, D-28195 Bremen (UMB)

Curatorial Staff: Peter-Rene Becker
Phone: 49-421-16038-140
Fax: 49-421-16038-99
E-mail: pr.becker@uebersee-museum.de

Types: 20 lots (Kraus), types not separated from the formed collection. Collection: 164 lots: 141 lots identified to family; 23 identified to order. Specimens are stored in ethanol/formaldehyde; collection labels are handwritten. Collection is cataloged and arranged in systematic order. No individual lot numbers have been assigned. Holdings from eastern Africa; some material from the remaining geographic regions. Associated collections: none. Estimated collection growth: unknown.

Department of Entomology and Department of Arachnology Collections, Staatliches Museum für Tierkunde, A B Meyer Gebäude, Königsbrücker Landstrasse 159, D-01109 Dresden (SMTD)

Curatorial Staff: Karin Schniebs

Types: none. Collection: 200 lots (est.): not identified. Collection labels are handwritten or typed. Collection is not cataloged. Holdings are mainly from Europe. Extensive alcohol collections, formerly housed in the "Zwinger" in Dresden, were lost in a fire in 1849 (Zwingerbrand). Most millipede material, including Silvestri types from 1897, were lost during the bombing of Dresden on October 7, 1944, when the museum was destroyed. Silvestri's collection in Portici (see Italy) contains paratypes of the types destroyed in Dresden (R. L. Hoffman, in litt.).

Forschungsinstitut und Naturmuseum Senckenberg, Arachnologie, Senckenberganlage 25, D-60325 Frankfurt-am-Main (SMF)

Curatorial Staff: Dr. Peter Jäger
Phone: 49-69-7542340/7542336
Fax: 49-69-746238
E-mail: Peter.Jaeger@Senckenberg.de, Julia.Altmann@Senckenberg.de
Web site: *http://www.senckenberg.uni-frankfurt.de/fis.htm*

Types: more than 800 lots (Attems; Carl; Ceuca; Chamberlin; Chamberlin & Hoffman; Cook; Demange; Enghoff; Golovatch; Hoffmann; Kraus; Loksa; Mauriés; McNeill; Meinert; Ribaut; Shear; Silvestri; Strasser; Verhoeff). Types are not separated from the formed collection. Type catalog is not available. Collection: 7,000 lots (est.): 6,710 identified at least to family. A negligible number of lots in the backlog, all identified to order. Specimens are stored in 70% ethanol; collection labels are handwritten or typed. Collection is arranged by catalog numbers. Collection is cataloged in catalog books and file cards. Individual lot numbers have been assigned. Collection contains the orders Callipodida, Chordeumatida, Glomerida, Julida (including Spirostreptida and Spirobolida), Polydesmida, and Polyxenida. Extensive holdings are from the Neotropics (Peru), the Palearctic, Southeast Asia, and western Africa. Some specimens from southern Africa. Voucher material: Martens Himalaya collection (identified and described by Golovatch). Associated collections: historical reprint and microscope slide collections. Annual collection growth: unspecified. Note: The Abteilung für Paläontologie und Historische Geologie houses fossil millipede material, among others Størmer types.

Staatliches Museum für Naturkunde, POB 300154, D-02806 Görlitz (SMNG)

Curatorial Staff: Dr. Karin Voigtländer
Phone: 49-3581-7610/7611/7612/7613
Fax: 49-3581-476062
E-mail: Karin.Voigtlaender@SMNG.SMWK.SACHSEN.DE

Types: none. Collection: 12,806 bulk lots (count): about 43,000 specimens of soil arthropods identified to species level; 1,000 bulk lots (est.) in backlog. Specimens are stored in 70% ethanol (denatured with methyl-ethyl-ketone [MEK]). Collection labels are handwritten or printed with a laser printer. Collection is arranged systematically. Collection is cataloged in catalog books and computerized (taxon-based flat file). Individual lot numbers have been assigned. Extensive holdings from Europe; some holdings from Mediterranean/northern Africa and Asia. Associated collections:

actively growing reprint collection, historical microscope slide collection, and an extensive bulk sample collection. Estimated collection growth: 400 bulk lots per year.

Ernst-Moritz-Arndt-Universität Greifswald, Zoologisches Institut und Museum, J. S. Bach-Str. 11/12, D-17489 Greifswald (EMAU)

Curatorial Staff: Dr. D. Schittek
Phone: 49-3834-864271
Fax: 49-3834-864252
E-mail: zool.museum@uni.greifswald.de

Types: none. Collection: 85 lots: all identified to family level. Unspecified number of lots in backlog, identified to order. Specimens are stored in ethanol; collection labels are handwritten. Collection is arranged systematically. Collection is cataloged in catalog books and accession records. Individual lot numbers have been assigned.

Institut für Zoologie der Martin-Luther-Universität, Domplatz 4, D-06099 Halle (Saale) (MLUH)

Curatorial Staff: Dr. Karla Schneider
Phone: 49-345-5526444
Fax: 49-345-5527152
E-mail: schneider@zoologie.uni-halle.de

Types: none. Collection: 150 specimens (52 species). Collection is cataloged in an inventory book. All holdings from the Palearctic. Collection growth: none. This is a historical collection; material was collected between 1860 and 1900.

Zoologisches Institut und Zoologisches Museum, Abteilung Entomologie, Universität Hamburg, Martin-Luther-King-Platz 3, D-20146 Hamburg (ZMUH)

Curatorial Staff: Dr. H. Dastych
Phone: 49-40-42838 6379
Fax: 49-40-42838 3937
E-mail: dastych@zoologie.uni-hamburg.de

Types: 517 lots (Attems; Carl; Cook; Demange; DeSaussure; Enghoff; Gerstäcker (?); Golovatch; Hoffman; Hoffman & Howell; Hoffman & Lohmander; Karsch; L. Koch; Krabbe; Krabbe & Enghoff; Kraepelin; Latzel; Mauriés; Peters (?); Pocock; Read; Schubart; Silvestri; Spelda; Verhoeff; Voges). Type catalog is published (Weidner, 1960; updated: Rack, 1973). Collection: 3,000 lots (count): identified at least to family level. About 1,000 species are represented in collection, more than 500 as types. Small number of lots in backlog partly identified to order. Specimens are stored in 70% ethanol; collection labels are handwritten or typed. Collection is arranged systematically, families within orders, by R. L. Hoffman (1973). Collection is cataloged on file cards and in catalog books. All orders are represented except Siphoniulida. Most material from the Palearctic. Associated collections: actively growing reprint collection and small microscope slide collection. Annual collection growth: very limited. Borrowers may be assessed outgoing shipping costs. Note: Fossil millipedes of Wolfgang Weitschat's extensive collection of amber inclusions are housed in the Geologisch-Paläontologisches Institut der Universität Hamburg.

Staatliches Museum für Naturkunde Karlsruhe, Erbprinzenstrasse 13, D-76133 Karlsruhe (SMNK)

Curatorial Staff: Dr. Hubert Höfer
Phone: 49-721-1752136
Fax: 49-721-1752110
E-mail: hubert.hoefer@smnk.de

Types: none known. Some of the specimens of the historical collection might be paratypes. Collection: 10,092 lots (est.): 92 lots (count) identified to family; 10,000 lots (est.) partly identified to order in backlog. Specimens are stored in ethanol, often with 1%–5% glycerine; collection labels are either printed with a laser printer or handwritten. Collection is arranged in order of acquisition, as there are extensive unsorted holdings. The formed collection is cataloged in catalog books and computerized (lot- or specimen-based relational database). Improved online access to the database is forthcoming (see *http://www.naturkundemuseum-karlsruhe.de/spelda-smnknill.htm*). Individual lot numbers have been assigned. Associated collections: historical and actively growing reprint and bulk sample collections, both of which are electronically cataloged, and actively growing collections of photographs, prints, and slides. Extensive holdings from the Neotropics, and Europe; some material from the Mediterrranean/northern Africa and eastern Africa. The collection contains Verhoeff voucher material.

Zoologisches Museum Kiel, Christian-Albrechts-Universität zu Kiel, Hegewischstrasse 3,D 24105, Kiel (ZMKG)

Curatorial Staff: Rudolf König
Phone: 49-431-8805170

Fax: 49-431-8805177
E-mail: zoolmuseum@email.uni-kiel.de

Types: none. Collection: 28 lots: 17 lots identified to family level; nine lots in backlog. Specimens are stored in ethanol; collection labels are handwritten. Collection is arranged systematically. It is not known if the collection is cataloged. Holdings from the Nearctic, the Neotropics, Europe, Mediterranean/northern Africa, and Southeast Asia. Collection growth: none.

Naturkundemuseum Leipzig, Lortzingstrasse 3, D-04105 Leipzig (MNSL)

Curatorial Staff: Ronald Schiller
Phone: 49-341-9822123
Fax: 49-341-9822122

Types: none. Collection: 60 lots (est.): none identified. Collection is arranged geographically. Specimens are stored in ethanol; collection labels are handwritten. Collection is partly cataloged. All material from Europe.

Entomological Collection, Naturhistorisches Museum Mainz, Reichklarastrasse 10, D-55116 Mainz (NHMM)

Curatorial Staff: Dr. Fr. O. Neuffer/Dr. Ulrich Schmidt
Phone: 49-6131-122646, 49-6131-122647
E-mail: lsnhmmz@mail.uni-mainz.de

Types: none. Collection: 10 lots (est.): none identified. Specimens are stored in 70% ethanol; collection labels are handwritten. Collection is not cataloged. Material from Europe, Mediterranean/northern Africa, and eastern Africa. Estimated collection growth: one lot per year.

Zoologische Staatssammlung, Münchhausenstrasse 21, D-81247 München 60 (ZSMC)

Curatorial Staff: Dr. Roland Melzer/Stefan Friedrich
Phone: 49-89-8107141
Fax: 49-89-8107300
E-mail: melzer@zsm.mwn.de

Types: 3,100 lots (Attems; Brolemann; Golovatch; Golovatch & Mikhaljova; Hoffman; C. L. Koch; L. Koch; Schubart; Strasser; Verhoeff; Williams & Hefner). Number of type specimens and list of authors likely are incomplete, and preparation of a type catalog is in progress. Types are not separated from the formed collection. Collection: 6,500 lots (est.): 6,250 lots (est.) identified to family; 250 lots identified to order in backlog. Specimens are stored in ethanol; collection labels are printed with an ink-jet printer, typed, or handwritten. The collection is arranged systematically at the family level and alphabetically at the genus level. The formed collection is partly cataloged in catalog books and computerized (taxon-based relational database). Individual lot numbers have been assigned. Associated collections: historical and actively growing reprint and microscope slide collections, both of which are electronically cataloged, and actively growing collections of photographs, prints, and slides. Extensive holdings from Europe and the Mediterranean/northern Africa; some holdings from other regions. Estimated collection growth: 20 lots per year.

Staatliches Museum für Naturkunde, Rosenstein 1, D-70191 Stuttgart (SMNS)

Curatorial Staff: Prof. Dr. W. Schawaller
E-mail: schawaller.smns@naturkundemuseum-bw.de

No Recent millipede collection. The museum houses an extensive collection of fossil millipedes in Dominican amber (curator: Dr. Günther Bechly).

Naturwissenschaftliche Sammlung (Zoologische Sektion), Museum Wiesbaden, Friedrich-Ebert-Allee 2, D-65185 Wiesbaden (MWNH)

Curatorial Staff: Fritz Geller-Grimm
Phone: 49-611-3352178
Fax: 49-611-3352192
E-mail: f.geller-grimm@museum-wiesbaden.de

No millipede collection. All alcohol material was destroyed during World War II. Remains of alcohol collections were transferred to Darmstadt (HLMD); no millipede collection is reported for Darmstadt.

Zoologisches Museum der Universität Heidelberg, Im Neuheimer Feld 230, D-69120 Heidelberg

Curatorial Staff: Siegfried Sparing
Phone: 49-6221-545532
Fax: 49-6221-544913
E-mail: siegfried.sparing@urz.uni-heidelberg.de

No millipede collection. Apparently the collection once held historic material, including types by Daday (label was found).

Zoologisches Museum der Universität Göttingen, Berliner Str. 28, D-37073 Göttingen (ZMUG)

Curatorial Staff: Dr. Gert Tröster/Prof. Dr. Rainer Willmann
Phone: 49-551-395524
Fax: 49-551-395579
E-mail: gtroest@gwdg.de, rwillma1@gwdg.de

Types: 23 lots (Silvestri). Types are not separated from the collection, and no type catalog is available. Collection: 275 lots (count): 191 lots identified to family; 84 lots in backlog. Specimens are stored in 70% ethanol; collection labels are handwritten. Collection is arranged alphabetically by family. The formed collection is cataloged in catalog books and computerized (taxon-based relational database). Individual lot numbers have been assigned. Main holdings from the Neotropics and Europe; some holdings from Southeast Asia and Ethiopian regions.

GHANA

No contact was established with Department of Biological Sciences, Museum of Natural History (University of Science and Technology, Kumasi).

GREECE

No contact was established with Goulandris Natural History Museum (Kifissia).

Zoological Museum of the University of Athens, Department of Biology, University of Athens, Panepistimioupolis, GR-157 84, Athens (ZMUA)

Curatorial Staff: Anastasios Legakis
Phone: 30-210-7274372
Fax: 30-210-7274249
E-mail: alegakis@biol.uoa.gr

Types: none. Collection: 550 vials: 500 vials identified to family; 50 vials in backlog. Specimens are stored in ethanol; collection labels are handwritten. Collection is arranged systematically. The formed collection is partly cataloged in accession records. No individual lot numbers have been assigned. Associated collections: historical and actively growing reprint collection. Holdings from Europe and the Mediterranean/northern Africa. Estimated collection growth: 20 lots per year.

GUADELOUPE

No contact was established with Institut de Reserches Entomologique de la Caribe (B.P. 119, Pointe-a-Pitre).

GUATEMALA

No contact was established with Museo Nacional de Historia Natural (Finca la Aurora, Zone 13, Guatemala City). Museo de Historia Natural de la Universidad de San Carlos de Guatemala (MNGC) (Guatemala City, Calle Mariscal Cruz, 1-56 Zone 10, Guatemala, C.A. [MNGC]; curatorial staff: Sergio Pérez) does not house a millipede collection.

Colección de Artrópodos, Laboratorio de Entomología Sistemática, Edificio 11-309 18 Ave. 11-95, zona 15, Vista Hermosa III, Apartado Postal 82, 01901 (UVGC)

Curatorial Staff: Enio Cano
Phone: 502-3640336 al 40 ext. 436
Fax: 502-3698336
E-mail: ecano@uvg.edu.gt

Collection: 400 vials. Specimens are stored in 80% propanol. All holdings from Guatemala and neighboring countries. This is the largest collection in Guatemala.

GUINEA

No contact was established with Local Museum (B.P. 114, N'Zerekore).

GUINEA-BISSAU

No contact was established with Museum of Portuguese Guinea (Praco do Imperio, Bissau).

GUYANA

No contact was established with Insect Collection, University of Guyana (Georgetown).

G. S. A. Compound, Mon Repos, East Coast Demerara (NARI)

Curatorial Staff: Dr. Leslie Munroe

Phone: 592-220-2450/2456
Fax: 592-220-2075

No millipede collection.

HONDURAS

No contact was established with Colección Entomológica, Escuela Nacional de Ciencias Forestales (Apartado 2, Siguatepeque, Comayagua); Colección de Insectos del Valle del Guyape (Olancho, Dirección Agrícola Regional no. 5, Ministerio de Recursos Naturales, Juticalpa, Olancho); and Escuela Nacional de Agricultura (Catacamas, Olancho).

Colección del Inventario Agroecológico, Depto. de Protección Vegetal, Escuela Agrícola Panamericana, Apartado 93, Tegucigalpa (EAPZ)

Curatorial Staff: Dr. Ronald D. Cave
E-mail: rcave@zamorano.edu.hn

No millipede collection.

HONG KONG

Agricultural and Fisheries Department, Hong Kong Government Tai Lung Farm, Lintongmei, Fan Kam Road, Sheung Shui, New Territories (DAFH)

Curatorial Staff: Stephen Lai
E-mail: aoppafd@netvigator.com

No millipede collection.

HUNGARY

The following institutions do not house millipede collections (data courtesy of Dr. Zoltán Korsós [HNHM]): Department of Ecology (University of Szeged, H-6701 Szeged, Pf.: 51 [JATH]; curatorial staff: Prof. Dr. Gallé), Bakony Termeszettudomanyi Muzeum/Bakony Museum (Rakoczi ter 1, H-8420 Zirk [SUEL]; curatorial staff: Dr. Sandor Toth), and Janus Pannonius Museum (Pecas, P.O. Box 158, H-7601 Pecas [JPMP]; curatorial staff: Dr. Akos Uherkovich).

Hungarian Natural History Museum, Baross U. 13, H-1088 Budapest (HNHM)

Curatorial Staff: Dr. Zoltán Korsós
Phone: 36-1-2677007
Fax: 36-1-3171669
E-mail: korsos@zoo.zoo.nhmus.hu

Types: 150 lots (Carl; Daday; Golovatch & Korsós; Korsós; Korsós & Golovatch; Korsós & Read; Loksa; Shear; Silvestri; Tömösváry). Types are separated from the general collection, and a type catalog is available (Korsós, 1983). Collection: 6,000 lots (est.): 2,000 (est.) identified at least to family; 4,000 lots (est.) in backlog, partly identified to order. Specimens are stored in 70% isopropanol or 70% ethanol; collection labels are handwritten, laser printed, or typed. Collection is arranged systematically by order. Genera are arranged alphabetically in orders. Collection is cataloged on file cards. The catalog is computerized (taxon-based flat file; individual lots are not numbered). All orders except Glomeridesmida and Siphoniulida are represented. Extensive holdings from Europe, southern Asia, and eastern Africa; some material from other regions. Associated collections: actively growing reprint collection and microscope slide collection. Estimated collection growth: 200 lots per year.

ICELAND

Icelandic Institute of Natural History, Hlemmur 3, P.O. Box 5320, 125 Reykjavik (NHRI)

Curatorial Staff: Erling Olafsson
Phone: 354-590-0500
Fax: 354-590-0595
E-mail: erling@ni.is
(This institution was formerly the Museum of Natural History.)

Types: none. Collection: 265 lots (count): all identified to family. Specimens are stored in ethanol; collection labels are printed with a laser printer or handwritten. The collection is cataloged and computerized (taxon-based relational database). Individual lot numbers have been assigned. Holdings from Europe. According to Erling Olafsson, there are no other millipede collections in Iceland.

INDIA

No contact was established with National Zoological Collection, Zoological Survey of India (34 Chittaranjan Avenue, Calcutta 700 012); Division of Entomology, National Pusa Collections, Indian

Agriculture Research Institute (New Delhi 110012, Haryana); Entomological Collection, Kerala Forest Research Institute (Peechi 680 653, Trichur District, Kerala); Zoological Museum, Department of Zoology, Madras Christian College (Tamba Ram, Madras 600 059, Tamil nadu); and Insect and Spider Collection, National Museum of Natural History (Ficci Museum Building, Barakhamba Road, New Delhi 110001). Insect Collection (Bombay Natural History Society, Hornbill House, Opp Lion Gate, Shagat Singh Road, Bombay 400023, Maharashtra [BNHS]; curatorial staff: Mr. J. C. Daniel) does not house a millipede collection.

Zoological Survey of India, Northern Regional Station, 218 Kaulagarh Road, Dehra Dun, 248195 Uttaranchal (ZSI)

Curatorial Staff: Dr. Vinöd Khanna
Phone: 91-135-2756349, 2754939, 2758362, 2747555
Fax: 91-135-2758362
E-mail: drvkhanna@sancharnet.in

Collection: 1,000 lots (est.): unidentified. Collection labels are handwritten. Individual lot numbers have been assigned. All material is from India.

INDONESIA

No contact was established with Museum Zoologicum Bogoriense (P.O. Box 110, Jala, Juanda 3, Bogor, Java).

IRAQ

No contact was established with Iraq Natural History Museum (Waziriya, Baghdad).

ISRAEL

Insect Collection, Zoological Museum, Tel Aviv University, Tel Aviv, 69978 (TAU)

Curatorial Staff: Yehuda Benayahu
E-mail: YehudaB@tauex.tau.ac.il

Types: 13 lots (Golovatch; Golovatch & Wytwer). Collection: about 300 lots (est.). Specimens are stored in 70% ethanol; collection labels printed or handwritten, and lots are arranged systematically. All material from Israel (data courtesy of Dr. S. I. Golovatch [IPEE]).

Terrestrial Invertebrate Collection, Department of Evolution, Systematics and Ecology, Hebrew University, Jerusalem 91904 (TIHU)

Curatorial Staff: Dr. G. Levy
Phone: 972-2-585111
Fax: 972-2-584741

Types: none. Collection: one jar of unidentified specimens stored in ethanol. Condé (Polyxenida) and Attems voucher material.

ITALY

No contact was established with Societa per gli Studi Naturalistica della Romagna (C.P. 144 I-47021 Cesena). The following institutions do not house millipede collections: Museo di Storia Naturale dell'Università di Pisa (via Roma 79, I-56011 Calci [Pi], Certosa di Calci; data courtesy of Dr. Marco Dellacasa) and Università di Bologna—Alma Mater Studiorum (Dipartimento di Scienze e Tecnologie Agroambientali—DiSTA—Entomologia, Viale G. Fanin, 42, I-40127 Bologna [IEGG]; this institution was formerly named "Instituto di Entomologia 'G. Grandi' dell' Università degli Studi di Bologna"; curatorial staff: Stefano Maini).

Museo di Scienze Naturali "Enrico Caffi," Piazza Cittadella 10, I-24129 Bergamo (MBCG)

Curatorial Staff: Valle Marco
Phone: 39-035-286012
Fax: 39-035-233154
E-mail: mvalle@comune.bg.it

Types: three lots (Enghoff). Types are not separated from the formed collection, and no type catalog is available. Collection: 1,500 lots (est.): 860 lots identified to family; 640 lots partly identified to order in backlog. Specimens are stored in ethanol; collection labels are printed with a laser printer or handwritten. Collection is arranged systematically. The formed collection is partly cataloged. Holdings mainly from Europe; some holdings from the Mediterranean/northern Africa.

Museo Zoologico "La Specola," University of Florence, Via Romana 17, I-50125 Florence (MZUF)

Curatorial Staff: Sarah Whitman

Phone: 39-055-2288254
Fax: 39-055-225325
E-mail: sarah@unifi.it
Web site: *http://www.specola.unifi.it*

Types: 17 lots (Brolemann; Ceuca; Pocock; Silvestri). Types are not separated from the formed collection, and no type catalog is available. Collection: 2,198 lots (count): 1,405 identified at least to family; 793 lots in backlog (count), all identified to order. Specimens are stored in 70% ethanol; collection labels are handwritten or laser printed. Collection is arranged alphabetically by family. Unidentified lots are arranged geographically. Collection is partly cataloged in accession records. The catalog is computerized (lot- or specimen-based flat file; individual lot numbers have been assigned). Main holdings from the Palearctic, India, and eastern Africa; some specimens from the Nearctic, Central America, western and southern Africa, and Australia. Associated collections: actively growing reprint collection and bulk sample collections. Estimated collection growth: five lots per year.

Museo Civico di Storia Naturale "Giacomo Doria," Via Brigata Ligura 9, I-16121 Genoa (MCSN)

Curatorial Staff: Dr. Roberto Poggi/Giuliano Doria
Phone: 39-010-564567
Fax: 39-010-566319

Types: unspecified number of lots (Pocock; Silvestri). Types are not separated from the formed collection, and no type catalog is available. Collection: 370 lots (est.). Collection labels are handwritten. Collection is arranged systematically. Collection is not cataloged.

Museo Civico di Storia Naturale, Corso Venezia 55, I-20121 Milano (MSNM)

Curatorial Staff: Dr. Carlo Pesarini
Phone: 39-02-88463280
Fax: 39-02-88463281

Types: 139 lots (Brolemann; Manfredi). Types are separated from the formed collection. A type catalog is available (Manfredi, 1976; Leonardi et al., 1995). Collection: 900 vials. Collection labels are handwritten. The collection is arranged alphabetically. All lots of the formed collection are cataloged in catalog books and accession records. No individual lot numbers. Associated collections: historical microscope slide collection. Holdings from Europe, Mediterranean, and northern and eastern Africa. This is a historical collection; it has not grown since Manfredi's research ended.

Museo di Zoologia, University of Modena and Reggio Emilia, via Università 4, I-41100 Modena (MZUMRE)

Curatorial Staff: Paolo Tongiorgi
Phone: 39-059-2055563
E-mail: tongiorg@unimo.it

Types: paratypes of *Amblyiulus tongiorgii* (Strasser). Small millipede collection. Collection is not cataloged.

Department of Biology, University of Padova, Via Ugo Bassi 58 B, I-35131 Padova (UNIPD)

Curatorial Staff: Prof. Alessandro Minelli
Phone: 39-049-8276303
Fax: 39-049-8276230
E-mail: alessandro.minelli@unipd.it

Types: none in general collection. Collection: 800 lots (est.): 500 lots identified to family (est.); 300 lots identified to order in backlog. Collection labels are printed with a laser printer or handwritten. Collection is arranged alphabetically by genera. The formed collection is not cataloged. Associated collections: actively growing reprint collection and historical microscope slide collection. Also, the "Canestrini collection" is housed here, consisting of 100 lots (est.), including type lots (Fanzago; Fedrizzi). The types are not separated from the rest of this collection, and no type catalog is available. Specimens are stored in ethanol; collection labels are handwritten. This collection is arranged in the original order of accession and together with centipedes. The collection is cataloged in accession records. Associated collections: historical reprint collection. Holdings from Europe.

Museo di Entomologia e Zoologia, Dip. di Entomologia e Zoologia Agraria dell'Università degli Studi di Napoli "Federico II," Via Università, 100-80055 Portici (Napoli) (MFS)

Curatorial Staff: Prof. Gennaro Viggiani/Bruno Espinosa
Phone: 39-081-2539192
Fax: 39-081-7755145
E-mail: genviggi@unina.it

Types: 700 lots (Attems; Berlese; Brolemann;

Chamberlin; Cook; Daday; Fanzago; Fedrizzi; Johns; Karsch; Latzel; Leach; Loomis; Lucas; Meinert; Nemec; Newport; Peters; Pocock; Porat; Ribaut; Silvestri; Sinclair; Tömösváry; Verhoeff). The type collection contains paratypes of the Silvestri's 1897 types, which were housed in Dresden and destroyed during World War II (R. L. Hoffman, in litt.). Types are separated from the collection, and a type catalog is available (Viggiani, 1973). Collection: 11,000 lots: 7,000 lots identified to family; 4,000 lots partly identified to order in backlog. Specimens are stored in ethanol; collection labels are typewritten or handwritten. Collection is arranged geographically and systematically. The formed collection is partly cataloged in catalog books. Individual lot numbers have been assigned. Associated collections: historical reprint and microscope slide collections. Extensive holdings from Nearctic, Central America, the Neotropics, Mediterranean/northern Africa, and Oriental regions; some holdings from the West Indies and Ethiopian regions.

Museo di Zoologia dell'Università di Roma "La Sapienza," Viale dell'Univesità, 32, I-00185 Roma (MZUL)

Curatorial Staff: Prof. Augusto Vigna Taglianti
Phone: 39-06-49914742
Fax: 39-06-4958259
E-mail: augusto.vignataglianti@uniroma1.it

Types: 1,520 lots (Enghoff; Golovatch; Strasser). Types are not separated from the formed collection, and no type catalog is available. Collection: 5,000 lots: 3,000 lots identified to family; 2,000 lots partly identified to order in backlog. Specimens are stored in 75% ethanol; collection labels are printed with a laser printer or handwritten. Collection is arranged geographically. The formed collection is partly cataloged and computerized. Extensive holdings from Central America and the Palearctic; some material from eastern and southern Africa. Associated collections: actively growing reprint and microscope slide collections.

Museo Regionale Scienze Naturali, Via Giolitti 36, I-10123 Torino (MRSN)

Curatorial Staff: Dr. Lisa Levi
Phone: 39-011-4323074
Fax: 39-011-4323331
E-mail: lisa.levi@regione.piemonte.it

Types: 160 (Pocock; Silvestri). Types will be separated from the general collection, and a type catalog is forthcoming. Collection: 2,500 specimens (est.): 107 genera and 252 species represented. A large but unknown number of lots are in backlog. Specimens are stored in ethanol; collection labels are handwritten. Collection is arranged alphabetically by genera. Collection is cataloged in catalog books. Extensive holdings are from the Neotropics, Europe, Mediterranean/northern Africa, and eastern Africa (Uganda). Some specimens from Central America, Southeast Asia, and Australia. Associated collections: historical reprint collection. This collection was formerly housed in the Museo e Istituto de Zoologia Sistematica, University of Turin.

Museo Civico di Storia Naturale di Venezia, S. Croce no. 1730, I-30135 Venice (MCNV)

Curatorial Staff: Dr. Mauro Bon
Phone: 39-041-2405211
Fax: 39-041-721000
E-mail: mauro.bon@comune.venezia.it

Types: two lots (Strasser). Small millipede collection. Specimens are maintained in 65% ethanol. This collection includes some cave material from the private collection of M. G. Paoletti. Specimens identified to specific level were evaluated by C. Strasser and A. Minelli.

Museo Civico di Storia Naturale di Verona, Lungadige Porta Vittoria, 9, I-37129 Verona (MCSNVR)

Curatorial Staff: Dr. Leonardo Latella/Dr. Roberta Salmaso
Phone: 39-045-8079419
Fax: 39-045-8035639
E-mail: leonardo_latella@comune.verona.it, roberta.salmaso@commune.verona.it

Types: unknown number of lots. Collection: 150 jars (count). Backlog is partly identified to order. Specimens are stored in 70% ethanol; collection labels are handwritten. Collection is arranged geographically and systematically. The formed collection is cataloged and computerized (lot- or specimen-based flat file). Individual lot numbers have been assigned. Main holdings from Mediterranean/northern Africa; some material from the Neotropics, Southeast Asia, and eastern Africa. Estimated collection growth: two lots per year. The collection may house type material (authors Strasser, Mauriès, and possibly others; data courtesy of A. Minelli [UNIPD]).

JAMAICA

No contact with Department of Zoology, University of the West Indies (Kingston, Mona, Kingston 7).

Natural History Museum, Institute of Jamaica, 12-16 East Street, Kingston (IJSM)

Curatorial Staff: Dr. Elaine Fisher
Phone: 876-922-06206
Fax: 876-922-1147
E-mail: nhd.ioj@mail.infochan.com

Types: none. Collection: 87 lots (count): Seven identified at least to family; 80 lots (est.) in backlog. Specimens are stored in 70% ethanol; collection labels are handwritten. Collection is not cataloged. Holdings from the West Indies (Jamaica). Associated collections: historical bulk sample collection (P. F. Bellinger collection). Estimated collection growth: one lot per year.

JAPAN

Drs. Tanabe (TKPM) and Ono (NSMT) assisted generously in compiling data on millipede collections in Japan. The following institutions do not house millipede collections: Entomological Laboratory (Faculty of Agriculture, Kyushu University, Hakozaki, Higashi-ku, Fukuoka 812-8581 [KUEC]; curatorial staff: Prof. Jun-ichi Yukawa/ Dr. Satoshi Kamitani), Insect Collection (Zoological Laboratory, Meijo University, Tenpaku-Ku, Nagoya 468 [ZLMU]; curatorial staff: Dr. Yutaka Arita), Entomological Laboratory (University of Osaka, Osaka 599-8531, Sakai Pref. [UOPJ]; curatorial staff: Dr. T. Hirowatari); Entomological Institute (Faculty of Agriculture, Hokkaido University, Sapporo 060-8589 [EIHU]; curatorial staff: Prof. Masaaki Suwa), and Laboratory of Insect Systematics (National Institute of Agro-Environmental Sciences, Kannondai, Tsukuba, Ibaraki Pref., 305-8604 [ITLJ]; curatorial staff: Dr. T. Matsumura).

Chiba Prefectural Museum, Aoba-cho 955-2, Chuo-ku, Chiba 260-8682 (CBMJ)

Curatorial Staff: Mr. Yasunori Hagino
E-mail: hagino@chiba-muse.or.jp

Small, uncurated millipede collection.

Dr. Keizaburo Shinohara, 2-7-4 Wakamiya, Ichihara-shi, Chiba 290-0006

Large personal collections (data courtesy of Dr. Hirotsugu Ono [NSMT]).

Prof. Dr. Yoshiaki Nishikawa, Biological Laboratory, Otemou Gakuin University, 2-1-15, Nishiai, Ibaraki-shi, Osaka 567-8502

Large personal collection from Japan, Nepal, China, and Vietnam. He published several papers with Dr. Murakami (data courtesy of Dr. Hirotsugu Ono [NSMT]).

Tokushima Prefectural Museum, Bunka-no-mori, Hachiman-cho, Mukaiderayama, Tokushima, 770-8070 (TKPM)

Curatorial Staff: Dr. Tsutomu Tanabe
Phone: 81-88-6683636
Fax: 81-88-6687197
E-mail: tanabe@staff.comet.go.jp

Types: six lots (Enghoff; Shear; Tanabe; Tanabe & Shinohara). Collection: 850 lots (count). Specimens are stored in 75%–80% ethanol; collection labels are handwritten or dot-matrix printed. Collection is arranged systematically. Collection is electronically cataloged (specimen-based flat file). Individual lot numbers have been assigned. Most material from Japan. Associated collections: actively growing collections of photographs, prints, and slides.

Mr. Kiyoshi Ishii, Department of Biology, Dokkyo University of Medicine, Mibu, Tochigi-ken, 321-0293 (UIPC)

E-mail: k-ishii@dokkyomed.ac.jp

Substantial personal collection; types of species he described are housed in his collection (data courtesy of Drs. Tsunomi Tanabe [TKPM] and Hirotsugu Ono [NSMT]).

National Science Museum, Tokyo, Hyakunin-cho 3-23-1, Shinjuku-ku, Tokyo 169-0073 (NSMT)

Curatorial Staff: Dr. Hirotsugu Ono
Phone: 81-3-33642311
Fax: 81-3-33647104
E-mail: ono@kahaku.go.jp

Types: 50 lots (est.; Golovatch; Haga; Ishii; Korsòs; Murakami; Shear, Tsurusaki, & Tanabe; Shinohara; Tanabe). Types are not separated from the general collection, and no type catalog is available. Collection: 20,000 lots (est.): 300 (est.) identified at least to family; large number of lots in

backlog, partly identified to order. Specimens are stored in 95% ethanol; collection labels are handwritten. Collection is arranged by catalog number. Collection is cataloged in catalog books. Extensive holdings from Japan; some specimens from Southeast Asia. Special collections: the Murakami collection is deposited here.

Laboratory of Biology, Faculty of Education, and Regional Sciences, Tottori University, Tottori 680 8551 (NTPC)

Personal collection of Dr. Nobuo Tsurusaki
Phone: 81-857-315110
Fax: 81-857-315110
E-mail: ntsuru@fed.tottori-u.ac.jp

Types: none. Collection: 1,400 lots (est.): 1,200 identified to family; 200 in backlog partly identified to order. Specimens are stored in 80% ethanol; collection labels are printed with dot-matrix printer or handwritten. Collection organization: unknown. Collection is partly cataloged in catalog books and computerized (taxon-based relational database). Associated collections: actively growing reprint and bulk sample collections. All holdings from Asia. Estimated collection growth: 100 lots per year.

Mr. Mitsuo Takano, Tsurumi Joshi, Highschool, 2-2-1 Tsurumi, Tsurumi-ku, Yokohama-shi, Kanagawa, 230-0063

Substantial personal collection (data courtesy of Dr. Hirotsugu Ono [NSMT]).

KENYA

No contact was established with K. A. R. I. Forest Insects Reference Collection, Kenya Agricultural Research Institute (Kari, P.O. Box 57811, Nairobi), and National Agricultural Research Laboratories (P.O. Box 14733, Nairobi).

Section of Entomology, National Museum of Kenya, P.O. Box 40658, Nairobi (NMKE)

Curatorial Staff: Wanja Kinuthia
E-mail: eafrinet@africaonline.co.ke

Small millipede collection.

REPUBLIC OF KOREA (SOUTH KOREA)

No contact was established with Department of Plant Protection, College of Agriculture (Kangweon National University, Kangweon Province), and Korean Entomological Institute (Korea University, Seoul). According to Prof. Bo-Keun Seo (e-mail: bkseo@kmu.ac.kr), there are no millipede collections in South Korea. However, Dr. Kil-Young Lim (2001, Chonbuk University) published on the diplopods of Korea and apparently maintains a personal collection.

LEBANON

Natural History Museum, Biology Department, American University of Beirut, Beirut (AUBL)

Curatorial Staff: Dr. Khouzama Knio
E-mail: kknio@aub.edu.lb

Small teaching collection.

LIBYA

No contact was established with Natural History Museum (The Castle, Tripoli).

LUXEMBOURG

Musée National d'Histoire Naturelle du Grand-Duchy de Luxembourg, 25 rue Münster, L-2160 Luxembourg (MGDL)

Curatorial Staff: Dr. Marc Meyer
E-mail: mmeyer@mnhn.lu

Types: none. Collection: several hundred vials; 30 specimens identified to species. Specimens are stored in 70% ethanol. All collecting sites and species are cataloged in a database (LUXNAT). All specimens are from Luxembourg. The millipede collection of this institution is currently curated by Dr. R. D. Kime (e-mail: des.kime@skynet.be).

MACAU

No contact was established with Camara Municipal Das Ilas (Island Government of Macau, Department De Servicos Agrarios, Parque Da Reserva De Siac Pai Van Cloane Island).

MADAGASCAR

No contact was established with Laboratoire de Zoologie (E. E. S. S. Ankatso, University of Antananarivo). It is unlikely that a millipede collection exists in Madagascar (data courtesy of Dr. S. Goodman [FMNH]).

MALAWI

No contact was established with Department of Agricultural Resources Collection (Ministry of Agricultural and Natural Resources, Bvumbwe Experimental Station, P.O. Box 5748, Limbe), Museum of Malawi (P.O. Box 30360, Chichiri, Blantyre), and Department of Forestry Collection (Ministry of Agricultural and Natural Resources, Forest Research Institute, P.O. Box 270, Zomba).

Department of Biology Collection, Chancellor College, University of Malawi, P.O. Box 280, Zomba (CCCZ)

Curatorial Staff: Dr. C. O. Dudley
Phone: 265-522-222
Fax: 265-522-046

Currently there is no millipede collection, but a plan exists to build a collection.

MALAYSIA

No contact was established with National Museum (Damansara Road, Kuala Lumpur) and Institute of Biodiversity and Environmental Conservation, Universiti Malaysia Sarawak (943000 Kota Samarahan, Sarawak). The following institutions do not house millipede collections: Entomology Unit (Forest Research Institute Malaysia [FIRM], Kepong, 52109 Kuala Lumpur; curatorial staff: Dr. Laurence G. Kirton), Sabah Museum (Jalan Muzium, 88300 Kota Kinabalu, Sabah [SMJM]; curatorial staff: Jaffit Majuakim), Natural History Division (Sarawak Museum Kuching, 93566 Kuching, Sarawak [SMSM]; curatorial staff: Charles Leh Moi Ung), and Forest Research Center (Forestry Department, P.O. Box 1407, 90715 Sandakan, Sabah; curatorial staff: Dr. Chey Vun Khen).

MAURITIUS

No contact was established with Natural History Museum, Mauritius Institute (P.O. Box 56, Port Louis), and the Mauritius Sugar Industry Research Institute (Reduitt).

MEXICO

No contact was established with Colección de Entomología (Centro de Entomología y Acarología, Colegio de Postgraduados, 56230 Chapingo), Colección Central de Insectos (Instituto Nacional De Investigaciones Forestales y Agro-Pecuarias, Apartado Postal 112, Celaya, GTO), Colección Nacional De Insectos (Museo de Historia Natural de la Ciudad De México, Apartado 18845, Delegación Miguel Hidalgo, México 11800, D.F.), Estación de Biologia "Chamela" (Universidad Nacional Autonoma de México, Apartado 21, 48980 San Patricio, Jalisco), and Colección de Insectos (Centro de Investigaciones Agricolas del Noroeste, Apartado 515, Ciudad Obregón, Sonora). Laboratorio de Entomología Forestal/Fauna del Suelo (Instituto de Fitosanidad, Colegio de Postgraduados, Montecillo, Edo. de México, México 56230; curatorial staff: Dr. Armando Equihua) does not house a millipede collection.

Colección Nacional de Arácnidos, Instituto de Biología, Universidad Nacional Autónoma de México, Ciudad Universitaria, Apartado Postal 70-153, C.P. 04510, México, D.F. (UNAM)

Curatorial Staff: Griselda Montiel-Parra
Phone: 52-55-6229147 ext. 47854
Fax: 52-55-5500164
E-mail: grismp@ibiologia.unam.mx

Type lots: eight (Chamberlin). Collection: 1,015 specimens. Specimens are stored in 80% ethanol. All holdings from Mexico.

Colección de Insectos, Instituto Tecnológico de Monterrey, Escuela de Agricultura, Monterrey, N.L. (ITMM)

Curatorial Staff: Dr. Luis Orlando Tejada
Phone: 52-81-83582000
E-mail: ltejada@campus.mty.itesm.mx

Types: number of lots unknown. Collection: 50,000 lots (est.). Backlog is identified to order. Collection labels are handwritten or typed. Collection is arranged alphabetically by family. Collection is not cataloged. Most holdings from Mexico; some from other parts of Central America. Associated collection: historical microscope slide collection. Estimated collection growth: 500 lots

per year (mostly collected by students from the area around Monterrey). Note: The number of reported lots appears high. We were unable to establish contact with the curator to verify the size of the collection.

Colección Entomológica del Centro de Estudios en Zoología, Universidad de Guadalajara, Apdo. Postal 234, 45100 Zapopan, Jalisco (UGZM)

Curatorial Staff: José Luis Navarrete-Heredia
E-mail: snavarre@maiz.cucba.udg.mx
Web site: *http://mx.geocities.com/hugofierros/index.html*

Types: none. Collection: 28 lots: unidentified.

Colección de Aracnología y Entomología del CIB (Centro de Investigaciones Biológicas), Centro de Investigaciones del Noroeste, Apdo. Postal 128, La Paz, B.C.S. 23000 (CIBN)

Curatorial Staff: Dr. María Luisa Jiménez
Phone: 52-612-1253626 ext. 3321
Fax: 52-612-1253633 ext. 3351
E-mail: ljimenez@cibnor.mx

Small millipede collection. All specimens from Sierra de la Laguna.

"IEXA Colección Entomológica," Instituto de Ecología, A. C., Km 2.5 antigua carretera a Coatepec # 351, Congregación El Haya. C.P. 91070 Xalapa, Veracruz (IEXA)

Curatorial Staff: M. C. Patricia Rojas Fernández
Phone: 52-228-8421800 ext. 4406
Fax: 52-228-8187809
E-mail: projas@ecologia.edu.mx

Types: None. Collection: 3,500 specimens representing 13 orders. Specimens are stored in 70% ethanol; collection labels are handwritten. Collection is arranged alphabetically by order. Collection is cataloged. Main holdings from Mexico; some from Guatemala, Belize, Brazil, Colombia, Venezuela, and Africa. Associated collections: none. Note: The abbreviation IEXA, used in this publication, was newly established.

MONACO

No contact was established with Musée Oceanographique de Monaco (Avenue Saint-Martin, 98000).

MOROCCO

No contact was established with Institut Scientifique Cheripen (Avenue Biar-Nay, Rabat).

MOZAMBIQUE

No contact was established with Dr. Alvaro de Castro Provincial Museum (Largo do Podrao das Descobertas, Maputo).

MYANMAR

There are no known millipede collections in Myanmar (personal communication to senior author from U Kin Maung Zaw, director for wildlife and conservation, Forestry Department).

NAMIBIA

The Desert Ecological Research Unit of Namibia (at Gobabeb, P.O. Box 1592, Swakopmund [GRSW]; curatorial staff: Dr. Joh Henschel) does not house a millipede collection.

National Museum of Namibia, P.O. Box 1203, Windhoek 9000 (NMNW)

Curatorial Staff: Tharina Bird
Phone: 264-61-276829
Fax: 264-61-228636
E-mail: tharina@natmus.cul.na, tharinabird@webmail.co.za

Types: one (Shelley & Crawford), separated from the general collection. Collection: 670 lots (count): 50 identified at least to family; 100 lots (est.) in backlog. Specimens are stored in 70%–75% ethanol; collection labels are handwritten or laser printed. Collection is arranged alphabetically by family. Collection is cataloged in catalog books and accession records. The catalog is computerized (taxon-based flat file). Individual lot numbers have been assigned. Most material from southern Africa. Associated collections: actively growing reprint collection. Estimated collection growth: 10 lots per year.

NEPAL

No contact was established with National Museum of Nepal (P.O. Box 180, Chauni, Kathmandu).

NETHERLANDS

Dr. Matty Berg (VUA) confirmed the existence of three scientific millipede collections in the Netherlands. The following institutions do not house millipede collections: Museon (Department of Biology, Stadhouderslaan 41, NL-2517 HV The Hague [MUDH]; curatorial staff: Rob T. A. Schouten), Natuurhistorisch Museum (M. H. Tromplaan 19, 7511 Enschede [MVEN]; curatorial staff: Frans van Stuyvenberg), Insect Collection (Fries Natuurhistorisch Museum, Schoenmakersperk 2, 8911 EM Leeuwarden [FNML]; curatorial staff: Johannes Fokkema), Insect Collection (Noordbrabants Natuurmuseum, Spoorlaan 434, NL-5038CH, Tilburg, [NNKN]; curatorial staff: Dr. F. Ellenbroek), Natural History Museum (De Bosquetplein 6-7, Postbus 882, NL-6200 AW, Maastricht [NHME]; curatorial staff: Dr. F. N. Dingemans-Bakels), and Insect Collection (Natuurhistorisch Museum, Van Serssenlaan 4, Postbus 23452, NL-3001 KL Rotterdam [NHMR]; curatorial staff: J. W. F. Reumer).

Vrije Universiteit, Institute of Ecological Science, Department of Animal Ecology, De Boelelaan 1085, 1081 HV, Amsterdam (VUA)

Curatorial Staff: Dr. Matty P. Berg
Phone: 31-20-4447077
Fax: 31-20-4447123
E-mail: matty.berg@ecology.falw.vu.nl

Types: none. Collection: 2,000 lots (est.): all identified to family. Specimens are stored in 70% ethanol; collection labels are printed with a laser printer or handwritten. Collection is arranged systematically. The collection is cataloged and electronically databased (lot or specimen based). Individual lot numbers have been assigned. All holdings are from the Netherlands. Estimated collection growth: 150 lots per year.

Department of Entomology, Zoological Museum, University of Amsterdam, Plantage Middenlaan 64, 1018 DH Amsterdam (ZMAN)

Curatorial Staff: Dr. Ben Brugge
Phone: 31-20-5256240
Fax: 31-20-5256528
E-mail: brugge@science.uva.nl

Types: unknown number of lots (Attems; Enghoff; Golovatch; Jeekel; Pocock). Types are not separated from the formed collection, and no type catalog is available. Collection: 10,000 lots (est.): 9,500 lots (est.) identified to family; 500 lots partly identified to order in backlog. Specimens are stored in 70% ethanol; collection labels are printed with a laser printer, typed, or handwritten. The formed collection is partly cataloged in catalog books. Extensive holdings from the West Indies, the Neotropics, Europe, Mediterranean/northern Africa, Southeast Asia, and Australia; some holdings from western North America, Central America, India, Ethiopian regions, New Zealand, and the Pacific Islands. Associated collections: actively growing reprint and microscope slides collections. Estimated collection growth: 40 lots per year.

Nationaal Natuurhistorisch Museum Naturalis, P.O. Box 9517, NL-2300 RA Leiden (RMNH)

Curatorial Staff: Dr. Erik J. van Nieukerken
Phone: 31-71-5687682
Fax: 31-71-5687666
E-mail: nieukerken@naturalis.nnm.nl
Web site: *http://www.naturalis.nl/*

Types: 100 lots (est.; Attems; Brandt; Demange; Haase; Hoffman; Jeekel). Types are not separated from the formed collection, and no type catalog is available. Collection: 5,500 lots (est.): 2,515 identified at least to family; 3,000 lots (est.) in backlog, partly identified to order. Specimens are stored in 70% ethanol; collection labels are handwritten or laser or dot-matrix printed. Collection is arranged alphabetically by family. Collection is cataloged in file cards and catalog books. The catalog will be computerized in the near future. Individual lot numbers have been assigned. Extensive holdings from Europe and Southeast Asia; some specimens from the Neotropics, Mediterranean/northern Africa, Asia, and the Pacific Islands. Associated collections: historical reprint and slide collections. Actively growing bulk sample collection from pitfall traps. Estimated collection growth: 40 lots per year.

NEW CALEDONIA

Laboratoire de Zoologie Appliquee, Orston, Boite Postale A 5, Noumea (ONNC)

Curatorial Staff: Dr. J. Chazeau
E-mail: Jean.chazeau@noumea.ird.nc

No millipede collection. Most collecting was done in collaboration with the staff of the Paris muse-

um (MNHN); material collected is housed at MNHN.

NEW ZEALAND

The following institutions do not house millipede collections (data courtesy of P. M. Johns [CMNZ]): National Plant Pest Reference Laboratory (Ministry of Agriculture and Forestry, P.O. Box 24, Lincoln; [PCNZ] curatorial staff: Alan Flynn), New Zealand Pastoral Agriculture Research Institute (Invermay Agricultural Centre, Private Bag, Mosgiel; curatorial staff: Dr. B. I. P. Barratt; all material passed on to Canterbury Museum), Department of Ecology (Massey University, Private Bag, Palmerston North [MUNZ]; curatorial staff: Dr. Murray Potter), Forest Research Institute (Private Bag, Rotorua [FRNZ]; curatorial staff: Mr. M. J. Nuttall), School of Biological Sciences (Victoria University of Wellington, P.O. Box 600, Wellington [VUWE]; curatorial staff: Dr. G. W. Gibbs), Northland Regional Museum (P.O. Box 1359, Whangarei [NRNZ]; curatorial staff: Dr. Bruce Young), and Whangarei Museum (State Highway 14 Maunu, P.O. Box 10, 135 Te Mai Whangarei; curatorial staff: Stefan Tengblad).

Auckland War Memorial Museum, Auckland Domain Drive, Private Bag 92018, Auckland (AMNZ)

Curatorial Staff: Dr. John W. Early
Phone: 64-9-3067042
Fax: 64-9-3067091
E-mail: jearly@aucklandmuseum.com

Note: Formerly the Auckland Institute and Museum. Types: none. Collection: 1,136 lots: 203 lots identified to family level, evaluated by G. Archey; 933 lots identified to order in backlog, evaluated by J. Early. Collection labels are either printed with a laser printer or handwritten. Collection is arranged alphabetically by family. Collection is not cataloged. Holdings from New Zealand and the Pacific Islands. Estimated collection growth: 10 lots per year.

New Zealand Arthropod Collection, Landcare Research, 120 Mt. Albert Road, Private Bag 92170, Auckland (NZAC)

Curatorial Staff: Grace Hall/Trevor Crosby
Phone: 64-9-8154200
Fax: 64-9-8497093
E-mail: hallgr@landcareresearch.co.nz

Types: a few lots (Johns). Collection: 6,000 lots (est.): 1,000 vials in formed collection identified at least to family level; backlog is identified to order. Specimens are stored in 75% ethanol; collection labels are printed with a laser printer or handwritten. The formed collection is organized geographically. Collection is not cataloged. Associated collections: historical reprint, photograph, print slide, and bulk sample collections. Main holdings from New Zealand; some from Australia and the Pacific Islands.

National Plant Pest Reference Laboratory, Ministry of Agriculture and Forestry, 131 Boundary Road, Blockhouse Bay, P.O. Box 2095 Auckland 1015 (PANZ)

Curatorial Staff: Olwyn Green
Phone: 64-9-6266036
Fax: 64-9-6274086
E-mail: greeno@maf.govt.nz

Types: none. Collection: 13 lots: 3 lots identified to family; 10 lots partly identified to order in backlog. Specimens are stored in 75% ethanol; collection labels are handwritten. Collection is arranged in alphabetical order of families and partly cataloged in accession records. Associated collections: actively growing reprint and bulk sample collections. Holdings from New Zealand and the Pacific Islands. Estimated collection growth: two lots per year. This collection contains the Plant Protection Center Collection (PPCC).

Canterbury Museum, Rolleston Avenue, Christchurch 8001 (CMNZ)

Curatorial Staff: Peter M. Johns
Phone: 64-3-3665000
Fax: 64-3-3665622
E-mail: P.Johns@zool.canterbury.ac.nz

Types: 35 lots (Condé; Hutton; Johns; Mauriès). Types are separated from the formed collection, and a type catalog is available (Johns, 2000). Collection: 2,000 lots (est.): 1,000 (est.) identified at least to family; 1,000 lots in backlog (est.), all identified to order. Specimens are stored in 80% ethanol and some specimens are stored dried; collection labels are handwritten and laser printed. Collection is arranged systematically. Collection is computerized (taxon-based relational database). All identified specimens have grid-referenced sites, and distribution maps can be produced.

Main holdings from New Zealand; some specimens from Australia and the Pacific Islands. Associated collection: historical reprint collection and actively growing bulk sample collection. Estimated collection growth: 20 lots per year.

Otago Museum, 419 Great King Street, P.O. Box 6202, Dunedin (OMNZ)

Curatorial Staff: Mr. Brian Patrick

Small collection (data courtesy of P. M. Johns [CMNZ]).

Entomology Research Museum, Lincoln University, Cnr Ellesmere Junction and Springs Roads, P.O. Box 84, Canterbury (LUNZ)

Curatorial Staff: John Marris
Phone: 64-3-3252811
Fax: 64-3-3253844
E-mail: marris@lincoln.ac.nz

Types: none. Collection: 70 lots (est.): none identified to family level, partly identified to order. Specimens are stored in 70% ethanol; collection labels are printed with a laser printer or handwritten. Collection is not cataloged. All material is from New Zealand. Estimated collection growth: two lots per year.

Entomological Collection, Museum of New Zealand, Te Papa Tongarewa, Private Bag, Wellington (MONZ)

Curator/Collection Manager: Dr. Phil Sirvid
Phone: 64-4-3817362
Fax: 64-4-3817310
E-mail: phils@tepapa.govt.nz

Types: 25 lots of paratypes (Holloway; Johns). Collection: 600 lots (est.): 450 (est.) identified at least to family; 150 lots (est.) in backlog, partly identified to order. Specimens are stored in 70% ethanol; collection labels are handwritten, laser printed, or typed. The formed collection is arranged alphabetically by family. Unidentified material is arranged geographically. Collection is not cataloged. Holdings mainly from New Zealand; some specimens from the Pacific Islands. Associated collections: actively growing reprint and bulk sample collections. Estimated collection growth: 50 lots per year.

NICARAGUA

None of the institutions contacted during the project reported a millipede collection (data confirmed by Jean-Michel Maes [SEAN]): Centro Experimental de Nueva Guinea, Zelaya (CENG; institution may no longer exist); Centro Nacional de Protección Vegetal (Cenaprove) (Museo de Entomología, Ministerio de Agricultura y Ganaderia, Managua [CENA]; curatorial staff: Ms. María Pedrina Córdova); Museo Entomológico (Asociación Nicaraguense de Entomología, AP 527—Léon [SEAN]; curatorial staff: Jean-Michel Maes; e-mail: jmmaes@ibw.com.ni); Museo Entomológico, Universidad Nacional Agraria, Managua [UNAC]; curatorial staff: Ms. Alba de la Llana); and Museo Entomológico (Universidad Nacional Autónoma de Nicaragua, Léon [UNAN]; curatorial staff: Ms. Miriam Corrales).

NORWAY

Museum of Zoology, University of Bergen, Muséplass 3, N-5007 Bergen (ZMUB)

Curatorial Staff: Lita Greve Jensen
Phone: 47-5-5582912
Fax: 47-5-5589677
E-mail: Lita.Greve.Jensen@zmb.uib.no

Types: none. Collection: 800 lots (est.): large number of lots in backlog. Specimens are stored in 70%–80% ethanol; collection labels are handwritten. Collection is arranged geographically. Collection is cataloged on file cards, and computerization is under way. Most material from Europe; collection contains Verhoeff voucher material.

Museum of Zoology, Sars GT. 1, N-0562 Oslo (ZMUN)

Curatorial Staff: Karsten Sunday
Phone: 47-22-851682
Fax: 47-22-851837
E-mail: karsten.sund@nhm.uio.no

Collection: a few thousand specimens: 2,100 specimens (est.) identified lots from Norway; 230 identified specimens from Tristan da Cunha (Atlantic Island, 37.08°S, 12.28°W, UK). Backlog: a few thousand undetermined specimens from Norway and a few thousand undetermined specimens from other countries.

OMAN

No contact was established with National Insect Collection (Natural History Museum, P.O. Box 668, Muscat).

PAKISTAN

No contact was established with Department of Zoology (University of Punjab, Lahore).

PANAMA

No contact was established with Museo de Entomología (Facultad de Agronomía, Universidad de Panamá, Octavio Mendez Pereira). No millipede collection in Panamá other than one at MIUP (data courtesy of Dr. Diomedes Quintero Arias [MIUP]). The Smithsonian Tropical Research Institute (P.O. Box 2072, Balboa [STRI]; curatorial staff: Dr. Annette Aiello; e-mail: aielloa@tivoli.si.edu) does not house a millipede collection.

Laboratorio de Artrópodos Venenosos (LAV), Museo de Invertebrados Graham B. Fairchild, Universidad de Panamá, Estafeta Universitaria 0824, Edificio Investigaciones Biológicas, Facultad de Ciencias, Planta baja, Panamá (MIUP)

Curatorial Staff: Dr. Diomedes Quintero Arias
Phone: 507-2127758
Fax: 507-2128148
E-mail: DQUINTER@ancon.up.ac.pa

Types: none. Collection: 285 lots (count): 131 lots identified to family level; 154 lots in backlog. Specimens are stored in 95% ethanol. Collection labels are handwritten. Collection is arranged systematically. The formed collection is partly cataloged and computerized. Most holdings from Central America; some from eastern North America, the West Indies, and the Neotropics. Estimated collection growth: 10 lots per year.

PAPUA NEW GUINEA

No contact was established with Central Reference Insect Collection (Department of Primary Industry, P.O. Box 2141, Boroko, N.C.D.); National Forest Insect Collection (Forest Research Centre, P.O. Box 314, Lae, Morobe Province); Department of Biology, Entomology Collection (University of Papua New Guinea, P.O. Box 320, University, N.C.D.); and Wau Ecology Institute (P.O. Box 77, Wau).

PARAGUAY

Inventario Biológico Nacional, Museo Nacional de Historia Natural del Paraguay, Sucursal 1, Campus U.N.A., Central XI, 2169 CDP (INBP)

Curatorial Staff: Dr. John A. Kochalka
Phone: 595-21-585208
Fax: 595-21-585208
E-mail: mnhnp@sce.cnc.una.py

One paratype (Hoffman 1995, *Gonorygma kochalkai*). Collection: 147 lots (count): 18 identified at least to family level (Polydesmida: 6 lots, Chelodesmidae, Paradoxosomatidae; Spirobolida, Rhinocricidae: 3, Spirostreptida, Spirostreptidae: 9); 129 lots (count) in backlog, most identified to order (Julida: 2 lots, Polydesmida: 40, Polyxenida: 9, Polyzoniida: 1, Spirobolida: 9, Stemmiulida: 68). Specimens are stored in 75% ethanol; collection labels are handwritten or laser printed. Collection is arranged systematically (families and genera arranged alphabetically within each order). Collection catalog is computerized (taxon-based flat file). Most material from the Neotropics (Paraguay); some specimens from eastern North America. Estimated collection growth: seven lots per year.

PERU

The following institutions do not house millipede collections (data courtesy of Dr. Diana Silva [CAS, MUSM]): Museo de Entomología (Estación Experimental Agrícola de la Molina, Ministerio de Agricultura y Alimentación, Lima [EELM]), Museo de Entomología (Universidad Nacional Agraria, Apartado 456, La Molina, Lima [UNAD]; curatorial staff: unknown), and Departamento de Fitotécnica (Museo de Entomología, Universidad Nacional "Pedro Ruiz Gallo," Apartado 3, Lambayeque [UPRG]).

Colección del Departmento de Entomología, Museo de Historia Natural de la Universidad Nacional Mayor de San Marcos, Avenida Arenales 1256, Apartado Postal 14-0434, Lima-14 (MUSM)

Curatorial Staff: Dr. Gerardo Lamas Muller/
Diana Silva
Phone: 51-1-4710117 ext. 27
Fax: 51-1-2655819
E-mail: glamasm@unmsm.edu.pe

Types: unknown number of lots (about 12 type lots by Golovatch, Vohland & Hoffman). Collection: 2,000 (est.): 20 lots identified to family; 1,980 lots identified to order in backlog. Specimens are stored in 75% ethanol; collection labels are handwritten. Collection is arranged alphabetically. The formed collection is not cataloged. All holdings from the Neotropics. Collection growth: active.

PHILIPPINES

No contact was established with Entomology Collection (University of San Carlos, Cebu City 6401), Department of Entomology (University of the Philippines Los Baños, Laguna), Biological Museum (Visayas State College of Agriculture, Baybay, Leyte), Entomology and Plant Pathology Division (P.O. Box 3127, 1271 Makati City), and Institute of Biology (University of Philippines at Diliman, College of Science, Diliman 1101 Quezon City).

POLAND

No contact was established with Institute of Systematics and Evolution of Animals—Museum (Sebastiana 9, PL-31-049 Krakow).

Museum of the Institute of Zoology, Polish Academy of Science, Wilcza 64, PL-00-679 Warszawa (MZPW)

Curatorial Staff: Jolanta Wytwer
E-mail: jolawyt@miiz.waw.pl
Web site: *http://www.miiz.waw.pl/english.html*

Types: unknown number of lots (Enghoff; Golovatch & Wytwer; Jedryczkowski; Mauriès & Enghoff; possibly others). No type catalog is available. Collection (currently stored off-site in the village of Lomna): 350 jars containing vials. Collection labels are handwritten. Collection is mostly unidentified; all identified material is from Poland. Unsorted material is arranged geographically. Some material has been identified by Golovatch, Enghoff, Tabacaru & Negrea, Dziadosz, Jedryczkowski, and possibly others. Collection is not cataloged; some Polish species are cataloged on file cards. Unidentified holdings from the Neotropics, the Palearctic, Southeast Asia, and eastern and southern Africa. Note: The Muzeum Ziemi of the Polish Academy of Sciences houses fossil millipede material and types of species described by Dzik.

Museum of Natural History, University of Wroclaw, H. Sienkiewicza 21, PL-50-335 Wroclaw (UWCP)

Curatorial Staff: Prof. Dr. Andrzej Wiktor/Dr. Beata M. Pokryszko
Phone: 48-71-3225044
Fax: 48-71-3225044
E-mail: awiktor@biol.uni.wroc.pl, bepok@biol.uni.wroc.pl

Types: none. Collection: 1,550 lots (est.): 615 identified at least to family; 900 lots in backlog (est.), all identified to order. Specimens are stored in ethanol; labels are handwritten or laser printed. Collection is arranged systematically (Hoffman, 1980). Unidentified material is arranged geographically. The formed collection is not cataloged. Individual lot numbers have been assigned to types. Most material from the Palearctic. Associated collections: actively growing reprint collection. Estimated collection growth: 20 to 50 lots per year.

PORTUGAL

No contact was established with Museu e Laboratorio Zoologico da Faculdade de Ciencias (Universidade de Coimbra, Coimbra).

Museu Bocage (Dept. Zoologia e Antropologia), Museu Nacional de História Natural, Universidade de Lisboa, Rua de Escola Politécnica, 1269-102 Lisboa (MB)

Curatorial Staff: Alexandra Marçal Correia
Phone: 351-21-3965853
Fax: 351-21-3969784
E-mail: amarcal@fc.ul.pt

Types: none. Collection: 3 lots (count). Lots are identified to order. Collection labels are handwritten. Collection is cataloged on file cards. European material only.

Centro de Zoologia do I. I. C. T., Div. Aranoentomologia, R. De Junqueira 14, 1300 Lisboa (IICT)

Curatorial Staff: Prof. Luis F. Mendes
Phone: 351-21-3637055
Fax: 351-21-3622626

Types: none. Collection: 69 lots (count): 13 identified at least to family. Specimens are stored in 70% ethanol; collection labels are handwritten. Collection is arranged geographically. Collection is cataloged in catalog books. Holdings from the Palearctic, Oriental regions, and western and eastern Africa. Estimated collection growth: three lots per year.

PUERTO RICO

No contact was established with Entomological Pioneering Research Laboratory (University of Puerto Rico, Mayaguez, PR 00708).

The private collection of Dr. Antonio Pérez-Asso, P.O. Box 846, Coto Laurel, PR 00780 (ARPA)

E-mail: hparaiso@caribe.net

Types: none. Collection: 5,000 specimens (est.). Specimens are stored in 70% ethanol. This collection consists of millipedes collected in Puerto Rico, Cuba, and the Dominican Republic. The collection is cataloged.

Department of Biology, University of Puerto Rico, Rio Piedras, Box 23360, San Juan, PR 00931-3360 (PRRP)

Curatorial Staff: Dr. Thomas
E-mail: rthomas@upracd.upr.clu.edu

This millipede collection contains the types of Dr. Vélez. However, many if not all have been lost. The collection is uncurated and in need of curatorial attention (data courtesy of Dr. Antonio Pérez-Asso; e-mail: hparaiso@caribe.net). No contact was established with the curator.

REUNION

No contact was established with Museum of Natural History (Jardin De L'Est, Saint-Denis).

ROMANIA

No contact was established with Muzeul de Istoria Naturala "Grigore Antipa" (L. Chaussee Kisselef 1, Bucharest), Muzeul de Istoria Naturala (Bdul Independentei 16, 7600, IASI), Muzeul Orasului Sf. Gheorghe (Strada 16 Februaruul 10, Sf. Gheorghe), Muzeul Brukenthal (Piata Republicii 4, Sibiu), and Colectia de Insecte a Muzeului Judetean Covasna (Strada 16 Februarie Nr. 10, 400 Sfintu Gheorghe, Judetul Covasna). According to Dr. Carol Prunescu (e-mail: prunescu@biochim.ro), there are no millipede collections in Romania.

RUSSIA

Zoological Institute, Diplopoda Collection, Universitetskaya nab., 1, St. Petersburg, 199034 (ZIN)

Curatorial Staff: Dr. Victor A. Krivokhatsky
Phone: 7-812-3281212
Fax: 7-812-1140444
E-mail: kva@zisp.spb.ru

Types: 1,000 lots (Beauvois; Brandt; Eichwald; Enghoff; Enghoff & Golovatch; Gerstfeldt; Gervais (?); Golovatch; Golovatch & Enghoff; Golovatch & Korsòs; Golovatch & Mikhaljova; C. L. Koch (?); Lignau; Lohmander; Lokshina & Golovatch; Mikhalijova; Rafinesque (?); Say (?); Verhoeff; Waga). Types are not separated from the formed collection; a type catalog is in preparation. Collection: 2,200 lots (est.): 2,000 identified to family; 200 lots in backlog. Specimens are stored in 70% ethanol, and some specimens are dry; collection labels are handwritten. Collection is arranged in alphabetical order of families. Collection is cataloged on file cards and catalog books. Individual lot numbers have been assigned. Most orders are represented in formed collection with the exception of Glomeridesmida, Platydesmida, Polyxenida, Siphoniulida, and Stemmiulida. Voucher material is by Verhoeff. Extensive holdings from the Palearctic and Southeast Asia; some material from the Nearctic, Central America, the Neotropics, India, Ethiopian regions, Australia, and the Pacific Islands. Estimated collection growth: 20 lots per year.

Zoological Museum, University of Moscow, Bolshaya Nikitskaya 6, Moscow 103009 (ZMMU)

Curatorial Staff: Dr. Arkady A. Shileyko
Phone: 7-095-2925796
Fax: 7-095-2033767
E-mail: schileyko1965@mail.ru

Types: 100 lots (Enghoff; Golovatch; Hoffman; Mauriès; Mikhaljova; Muralewicz; Shear; Shelley; Verhoeff). Types are separated from the formed collection; no type catalog is available. Collection: 45,000 lots (est.): 5,000 lots (est.) identified to family; 40,000 lots partly identified

to order in backlog. Specimens are stored in 70% ethanol; collection labels are handwritten. Collection is arranged alphabetically by genera and by species within each genus. The formed collection is partly cataloged in catalog books. Individual lot numbers have been assigned. Associated collections: historical and actively growing reprint, microscope slide, and bulk sample collections. The collection contains about 100 species of Verhoeff's voucher material. Extensive holdings from Europe, Mediterranean/northern Africa, and Asia; some holdings from the Nearctic, Middle America, and the Neotropics. Estimated collection growth: 150 lots per year.

A. N. Severtzov Institute for Problems of Ecology and Evolution, Russian Academy of the Sciences, Leninsky prospekt. 33, Moscow 119071 (IPEE)

Curatorial Staff: Dr. Sergei Golovatch
Phone: 7-095-9390834
Fax: 7-095-9545534
E-mail: sgol@orc.ru

Types: none. Collection: 400 lots (est.): all identified to family level. Specimens are stored in 70% ethanol; collection labels are handwritten. Collection contains voucher specimens identified by H. Lohmander, S. Golovatch, and others.

Institute of Biology and Soil Science, Far Eastern Branch of the Russian Academy of Sciences, Pr. 100-letiya 159, Vladivostok 690022 (IBSV)

Curatorial Staff: Dr. E. V. Mikhaljova
Phone: 7-4232-311133
Fax: 7-4232-310193
E-mail: ibss@eastnet.febras.ru

Types: 43 lots (Golovatch; Golovatch & Mikhaljova; Mikhaljova). Types are separated from the formed collection. A type catalog is available from the curator. Collection: 95 lots: 90 lots identified to family; five lots identified to order in backlog. Specimens are stored in alcohol; collection labels are handwritten. Collection is arranged systematically and by geographic region. The formed collection is partly cataloged in catalog books. Main holdings from the eastern Palearctic; some material from Southeast Asia. Associated collections: none. Estimated collection growth: five lots per year.

Siberian Zoological Museum, Institute for Systematics and Ecology of Animals, Frunze Street-11, 630091 Novosibirsk (SZMN)

Curatorial Staff: Miss Galina Azarkina
Phone: 7-3832-170633
Fax: 7-3832-170973
E-mail: mu3@eco.nsc.ru

Types: none. Collection: 250 specimens. Specimens are stored in ethanol; collection labels are either printed with a laser printer or handwritten. The collection is arranged systematically. The collection is not cataloged but is listed at *http://www.bionet.nsc.ru/szmn/Inverteb/Diplopoda.htm.* Holdings from Europe and Asia.

ST. LUCIA

No contact was established with Research and Development Station (Windward Islands Banana Grower's Association, P.O. Box 115, Castries).

SEYCHELLES

National Archives and Museum Division, P.O. Box 720, Victoria, Mahé (SMVM)

Curatorial Staff: Mr. Alain Lucas/Mrs. Mary May Albert
Phone: 284-321333
Fax: 284-322113
E-mail: seymus@seychelles.net

Types: none. Two dry lots, both identified to family.

SINGAPORE

Zoological Reference Collection, Raffles Museum of Biodiversity Research, Department of Biological Science, National University of Singapore, Kent Ridge, 119260 (ZRC)

Curatorial Staff: Mrs. Yang Chang Man/Lua Hui Kheng
Phone: 65-68745082
Fax: 65-77448101
E-mail: dbsycm@nus.edu.sg

Types: five lots (Wang, Y. M., & Tang, M. C.). Types are separated from the formed collection. No type catalog is available. Collection: 130 lots (est.): 30 lots identified to family; 100 lots in backlog. Collection labels are either typewritten or handwritten. Collection is arranged in alphabetical order of families, genus, and species. The

formed collection is partly cataloged in catalog books. Individual lot numbers have been assigned. All holdings from Southeast Asia. Estimated collection growth: five lots per year.

SLOVAKIA

Slovenské Národné-Múzeum, Prírodovedné Múzeum, Zoologicke Oddelenie, Vajanského Nábrežie 2, P.O. Box 13, 810 06 Bratislava 16 (SNMC)

Curatorial Staff: Dr. Vladimír Janský
E-mail: entomo@snm.sk

Types: none. Collection: 500 lots. Specimens are stored in ethanol; collection labels are typed or handwritten. Collection is arranged systematically. The formed collection is partly cataloged in catalog books and accession records. Holdings from Europe. Estimated collection growth: 20 lots per year.

SLOVENIA

The Department of Biology (Biotechnical Faculty, Univerza v Ljubljani, Vecna pot 111, p.p. 2995, 1001 Ljubljana; curatorial staff: Dr. Boris Sket) does not house a millipede collection.

Slovene Museum of Natural History, Prešernova 20, P.O. Box 290, 1001 Ljubljana (PMSL)

Curatorial Staff: Dr. Tomi Trilar
Phone: 386-61-2410960
Fax: 386-61-2410953
E-mail: ttrilar@pms-lj.si

Types: none. Collection: 4,000 lots. Specimens are stored in 70% ethanol; collection labels are handwritten. This is the collection of Dr. Narcis Mršić and is in need of curatorial attention. The specimens and data are now in the process of being restored and will probably require two more years. At that time the collection will be available to the scientific community.

SOLOMON ISLANDS

No contact was established with Ministry of Natural Resources (Honiara).

SOUTH AFRICA

The South African National Collection of Insects (Biosystematics Division, Plant Protection Research Institute, Private Bag X134, Pretoria 0001 [SANC]; curatorial staff: Dr. G. L. Prinsloo) does not house a millipede collection.

National Museum, P.O. Box 266, Bloemfontein 9300 (BMSA)

Curatorial Staff: Mr. Leon Lotz
E-mail: arachnol@nasmus.co.za

Types: none. Collection: 116 lots (count). Specimens are stored in ethanol; collection labels are handwritten and laser printed. Formed collection is arranged alphabetically by family. Collection is computerized with individual lot numbers. Holdings mainly from southern Africa.

Entomology Department, South African Museum, P.O. Box 61, Cape Town 8000 (SAMC)

Curatorial Staff: Dr. Hamish Robertson/Margie Cochrane
Phone: 27-21-4243330
Fax: 27-21-4246716
E-mail: mcochrane@samuseum.ac.za

Types: 500 to 600 lots (est.; Attems). Most genitalia of types are currently housed in the Naturhistorisches Museum in Vienna, Austria. Efforts are under way to associate type specimens with specimen parts, mainly genitalia. Types are separated from the formed collection. Collection: 1,976 lots (count): 1,900 (est.) identified at least to family; 200 lots (est.) in backlog, partly identified to order. Specimens are stored in 80% ethanol, and some are dried; collection labels are handwritten. Collection is arranged by order, and families are arranged alphabetically within orders. Collection is cataloged in catalog books and electronically in relational database. Individual lot numbers have been assigned. Main holdings from southern Africa. Associated collection: a microscope slide collection. Estimated collection growth: 60 lots per year.

Durban Natural Science Museum, P.O. Box 4085, Durban 4000 (DMSA)

Curatorial Staff: Guy Redman
Phone: 27-31-3112243
Fax: 27-31-3112242
E-mail: guyr@crsu.durban.gov.za

Small collection (about 30 lots), currently with Dr.

Michelle Hamer (University of Natal; e-mail: HamerM@nu.ac.za).

Albany Museum, Somerset Street, Grahamstown 6139, Eastern Cape Providence (AMGS)

Curatorial Staff: Sarah K. Gess
Phone: 27-46-6222312
Fax: 27-46-6222398
E-mail: S.Gess@ru.ac.za

Types: six lots (Hewitt). Types are not separated from the formed collection. Collection: 94 lots: 85 lots in formed collection; nine lots in backlog. Specimens are stored in 70% ethanol; collection labels are handwritten. Collection is not cataloged. Holdings from southern Africa.

Natal Museum, 237 Loop Street, Pietermaritzburg 3200, Kwazulu-Natal (NMSA)

Curatorial Staff: Debbie Jennings
Phone: 27-33-3451404
Fax: 27-33-3450561
E-mail: djennings@nmsa.org.za

Types: 200 lots (est.; Attems; Kraus; Lawrence; Verhoeff). Collection: 1,600 lots (est.): 1,500 (est.) identified at least to family; 100 lots (est.) in backlog. Specimens are stored in ethanol; collection labels are handwritten or printed on a dot-matrix printer. Collection is arranged by order and family, and genera and species are arranged alphabetically within families. Collection is cataloged in catalog books. Collection is computerized (flat file). Main holdings from southern Africa; some material from eastern Africa. Associated collection: historical reprint collection. Estimated collection growth: 200 lots per year.

Transvaal Museum, Paul Kruger Street 432, Pretoria 0001 (TMSA)

Curatorial Staff: Klaas Manamela/Barbara Dombrowsky
Phone: 27-12-3227632
E-mail: Dombrow@nfi.co.za

Types: one type lot (Lawrence), not separated from the formed collection. Collection: 858 lots (evaluated by K. Manamela, M. Hamer, and G. T. Redman): 328 lots identified to family level; 530 lots partly identified to order in backlog. Collection is arranged in alphabetical order of families. The formed collection is cataloged in catalog books and accession records and computerized (lot- or specimen-based relational database). Individual lot numbers have been assigned. Holdings mainly from southern Africa. Associated collections: historical reprint collection.

ARC-PPRI, 600 Southpansberg Road, Rietondale, Pretoria 0084 (PPRI)

Curatorial Staff: Dr. A. S. Dippenaar-Schoeman
Phone: 27-12-3293269
Fax: 27-12-3293278
E-mail: rietasd@plant2.agric.za

Types: none. Collection: five lots (count): four lots identified to family; one lot identified to order in backlog. Specimens are stored in 70% ethanol; collection labels are handwritten. Holdings are computerized (taxon-based relational database). Individual lot numbers have been assigned. Holdings from southern Africa. Associated collections: actively growing reprint collection.

SPAIN

No contact was established with Zoology Department, Universidad de la Laguna (Tenerife), Museo Zoología (Apartado de Correos 593, Barcelona), and Catedra de Entomología (E. T. S. Ingenieros de Montes, Universidad Politécnica, Ciudad Universitaria, Madrid). The Estación Biológica de Doñana (C/Paraguay 1, Sevilla [EBDS]; curatorial staff: Dr. Xim Cerda) does not house a millipede collection.

Unidad de Zoologia, Departament de Biologia Animal, Biologia Vegetal i Ecologia, Facultat de Ciències, Universitat Autònoma de Barcelona, E-08193 Cerdanyola del Vallès (Barcelona) (UABS)

Curatorial Staff: Maite Carrassón
Phone: 34-935-812618
Fax: 34-935-811321
E-mail: d.bave@uab.es

This is the collection of Dr. M. Cristina Vicente. Collection is not cataloged. Further information is not available, as there is no collections manager assigned to this collection. However, the laboratory makes the collection available to visiting researchers.

Museum of Zoology, University of Navarra, P.O. Box 177, Pamplona (Navarra), 31080 (MZNA)

Curatorial Staff: Dr. Enrique Baquero

Phone: 34-948-425600
Fax: 34-948-425649
E-mail: unzyec@unav.es
Web site: *http://www.unav.es/unzyec/eng/*

Types: none. Small collection of samples partly identified to order. Specimens are stored in ethanol; collection labels are handwritten. Collection is computerized (taxon-based database). Holdings from Europe and Mediterranean/northern Africa.

Museo Nacional de Ciencias Naturales, C/José Gutiérrez Abascal 2, Madrid 28006 (MNMS)

Curatorial Staff: Dr. Miguel Villena Sánchez-Valero
Phone: 34-91-4111328 ext. 1105
E-mail: miguelv@mncn.csic.es

Types: six lots (Carl). Types are separated from the formed collection. No type catalog is available. Collection: 1,793 (count): 1,372 lots identified to family; 421 lots partly identified to order in backlog. Specimens are stored in 70% ethanol; collection labels are printed with an ink-jet printer. Collection is arranged alphabetically by order and by catalog number. The formed collection is cataloged in catalog books and is computerized (lot- or specimen-based relational database). Individual lot numbers have been assigned. Main holdings from Mediterranean/northern Africa and eastern Africa; some holdings from Europe and Southeast Asia. Estimated collection growth: six lots per year.

Museu Valencià d'Història Natural, Fundación Entomológica Torres Sala, Paseo de la Pechina no. 15, 46008 Valencia (MVHN)

Curatorial Staff: Sergio Montagud Alario
E-mail: sergio.montagud@uv.es

Types: none. Collection: 5,000 lots (est.): 1,500 lots identified to family; 3,500 partly identified to order in backlog. Specimens are stored in 70% ethanol; collection labels are printed with a dot-matrix printer or handwritten. Collection is arranged geographically and by family. The formed collection is partly cataloged and computerized (taxon-based database). Extensive holdings from Europe and Mediterranean/northern Africa. Associated collections: actively growing microscope slide and photograph, print, and slide collections.

SRI LANKA

No contact was established with National Museum (Sir Marcus Fernando Mawatha, Colombo 7).

SUDAN

No contact was established with Sudan Natural History Museum (University of Khartoum, Gama Avenue, P.O. Box 321, Khartoum).

SURINAME

The Center for Agricultural Research (University of Suriname, Paramaribo [CARS]) and the Botanical and Zoological Collection (Suriname State Museum, P.O. Box 2306, Mededelingen, Paramaribo [SSMS]; curatorial staff: Dr. Gloria C. Leurs) do not house millipede collections. All zoological collections of the latter were given to the National Zoological Collection (data courtesy of Helene Hiwat [NZCS]).

National Zoological Collection of Suriname, Department of Zoology, University of Suriname, Leysweg, P.O. Box 9212, Paramaribo (NZCS)

Curatorial Staff: Helene Hiwat
E-mail: nzcs@cq-link.sr

Types: none. Collection: fewer than 50 lots. Specimens are stored in ethanol; collection labels are printed with a dot-matrix printer. All data are included in computerized database. All material from Suriname.

SWEDEN

Lund University Zoological Museum, Helgonav. 3, SE-22362 Lund (MZLU)

Curatorial Staff: Dr. Lars Lundqvist/Dr. Roy Danielsson
Phone: 46-46-2229330, 46-46-2229334
Fax: 46-46-2224541
E-mail: Lars.Lundqvist@zool.lu.se, Roy.Danielsson@zool.lu.se

Types: 202 lots (Attems; Demange; Enghoff; Lawrence; Mauriès; Schubart; Verhoeff). The types are separated from the formed collection; no type catalog is available. Collection (including all myriapods): 2,000 lots (est.): 1,800 lots (est.)

identified to family; 200 lots partly identified to order in backlog. An estimated 800 lots of this collection are Diplopoda. Specimens are stored in ethanol; collection labels are printed with a laser printer, typed, and handwritten. Collection is arranged systematically and geographically. All lots of the formed collection are cataloged in catalog books and computerized (taxon-based flat file). No individual lot numbers have been assigned. Associated collections: historical reprint collection. Main holdings from Europe and southern Africa; some holdings from the Mediterranean/northern Africa, Oriental regions, and western Africa.

Museum of Evolution, Zoology Section, Evolutionary Biology Centre, Uppsala University, Norbyvägen 16, SE-75236 Uppsala (UZIU)

Curatorial Staff: Dr. Mats Eriksson
Phone: 46-18-4712668
Fax: 46-18-4712794
E-mail: mats.eriksson@evolmuseum.uu.se, zoology@evolmuseum.uu.se

Types: 17 lots (Linnaeus; Porat). The types are separated from the formed collection, and a type catalog is available (Wallin, 1991). Collection: 250 lots (est.): 200 lots (est.) identified to family; 50 lots partly identified to order in backlog. Specimens are stored in 80% ethanol; collection labels are printed with a laser printer, typed, or handwritten. Collection is arranged systematically. All lots of the formed collection are cataloged in catalog books and computerized (lot- or specimen-based relational database). Catalog should be available via the Internet in 2004. Individual lot numbers have been assigned. Associated collections: historical reprint collection. Main holdings from Europe; some holdings from the Nearctic, the Neotropics, the Mediterranean/northern Africa, Asia, western Africa, and Australia.

Göteborgs Naturhistoriska Museet, Box 7283, SE-402 35, Göteborg (GNM)

Curatorial Staff: Dr. Ted von Proschwitz/Dr. Göran Andersson
Phone: 46-31-7752400
Fax: 46-31-129807
E-mail: info@gnm.se, goran.andersson@gnm.se

Types: 146 lots (Attems; Demange; Enghoff; Golovatch; Latzel; Lohmander; Mauriès; Porat; Read; Stuxberg; Verhoeff). The types are separated from the formed collection, and a type catalog is available at *http://www.gnm.se.* Collection: 40,000 lots (est.): 17,500 lots identified to family; 22,500 lots partly identified to order in backlog. Specimens are stored in ethanol; collection labels are printed with a laser printer, typed, or handwritten. Collection is mostly arranged systematically, though there is some geographic arrangement. The formed collection is partly cataloged in accession records. No individual lot numbers have been assigned. Associated collections: historical reprint and microscope slide collections. Extensive holdings from Europe; some holdings from the Nearctic, Middle America, the Neotropics, the Mediterranean/northern Africa, Asia, Oriental regions, Australia, and the Pacific islands. Estimated collection growth: 10 lots per year.

Swedish Museum of Natural History, Department of Entomology, Box 50007, SE-104 05 Stockholm (NHRS)

Curatorial Staff: Dr. Torbjorn Kronestedt
Phone: 46-8-51954260
Fax: 46-8-51954099
E-mail: torbjorn.kronestedt@nrm.se

Types: unknown number of lots (Attems; Enghoff; Jeekel; Kraus; Porat; Silvestri; Stuxberg; Verhoeff). Types are not separated from the formed collection, and no type catalog is available. Collection: unspecified number of lots. Backlog is partly identified to order. Specimens are stored in ethanol; collection labels are handwritten. The formed collection is partly cataloged and computerized (flat file). Associated collections: historical reprint and microscope slide collections. Holdings mainly from the Nearctic, the Palearctic, and Oriental and Ethiopian regions; some holdings from Australia, the Neotropics, and the West Indies. Annual collection growth: unspecified.

SWITZERLAND

In connection with the European *BioCASE* Project (*http://www.biocase.org/*), Switzerland recently established *MeDaCollect,* an online service assembling comparative data on its natural history collections at *http://sanw-webfm.unibe.ch/biodiversity/medacollect/index_d.html.* Pedroli-Christen (1993) reviewed the Swiss myriapod collections.

The following institutions do not house millipede collections: Naturhistorisches Museum Bern

(Bernastrasse 15, CH-3005 Bern [NMBS]; curatorial staff: Dr. Christian Kropf), Musée d'Histoire Naturelle (CH-2300 La Chaux-De-Fonds [MHNC]; curatorial staff: Dr. Marcel S. Jacquat), and Entomologisches Institut (Eidgenössische Technische Hochschule-Zentrum, Universitätstrasse 2, CH-8006, Zürich [ETHZ]; curatorial staff: Prof. Dr. W. Sauter, retired; data courtesy of Dr. P. Schwendinger [MHNG]).

Zoological Museum of the University of Zürich, Karl Schmid-Strasse 4, CH-8006 Zürich (ZMUZ)

Curatorial Staff: Prof. Paul Ward/Dr. Marianne Haffner
Phone: 41-1-635 4790
Fax: 41-1-635 4780
E-mail: marhaff@zoolmus.unizh.ch

Types: unknown. Collection: 64 lots. Collection contains voucher material of Faës and C. L. Koch. Specimens are stored in 70% ethanol. Collection is cataloged on file cards. Holdings from Southeast Asia (Sumatra).

Bündner Natur-Museum, Masanserstr. 31, CH-7000 Chur (BNM)

Curatorial Staff: Dr. Jürg Paul Müller
Phone: 41-81-2572841
Fax: 41-81-2572850
E-mail: juerg.paul.mueller@bnm.gr.ch, info@bnm.gr.ch

Types: 14 lots (Am Stein), three lots (Bigler). Type catalogs are available (Bigler, 1929; Am Stein, 1857); see also Pedroli-Christen (1993). Collection contains voucher material by Am Stein (34 lots) and Bigler (384 lots). Specimens are stored in 70% ethanol; labels are handwritten. The collection is catalogued. Associated collections: historical microscope slides. Holdings from the western Paleartic. Collection growth: none.

Zoology Department, Naturhistorisches Museum, Augustinergasse 2, CH-4001 Basel (NMBA)

Curatorial Staff: Drs. Ambros Haenggi/Edi Stöckli/Urs Wüst
Phone: 41-61-2665537
Fax: 41-61-2665546
E-mail: ambros.haenggi@bs.ch, eduard.stoeckli@bs.ch

Types: 200 lots (est.; Attems; Bigler; Carl; Demange; Enghoff; Golovatch; Hoffman; Lohmander). Types are not separated from the formed collection. A type catalog will be available at *http://www.nmb.bs.ch.* Collection: 1,600 lots (est.): 1,125 lots (count) in formed collection; about 500 lots partly identified to order in backlog. Collection labels are printed with a laser printer, typed, or handwritten. Collection is organized in alphabetical order of genus and species within families. All lots of the formed collection are cataloged in catalog books or index cards and computerized (taxon-based flat file, copied from catalog). Individual lot numbers have been assigned. Associated collections: historical reprint and microscope slide collections and actively growing bulk sample collection. Extensive holdings from Europe, Mediterranean/northern Africa, Southeast Asia; some holdings from the Nearctic, Middle America, the Neotropics, Asia, Australia, New Zealand, the Pacific Islands, and Ethiopian regions. Estimated collection growth: 10 lots per year.

Muséum d'Histoire Naturelle, Case Postale 6434, CH-1211, Geneva 6 (MHNG)

Curatorial Staff: Dr. Peter Schwendinger
Phone: 41-22-418 6330
Fax: 41-22-4186301
E-mail: peter.schwendinger@mhn.ville-ge.ch

Types: 312 holotypes and 276 paratypes (Buckett & Gardner; Carl; Chamberlin; Condé; Cook & Loomis; DeSaussure; DeSaussure & Humbert; DeSaussure & Zehntner; Enghoff; Golovatch; Hoffman; Humbert; Humbert & DeSaussure; Loomis; Mauriès; Peters; Shear; Shelley; Silvestri; Strasser; Verhoeff). Types are not separated from the formed collection, and no type catalog is available. Collection: 10,000 lots (est.): 8,000 (est.) identified at least to family. Collection: 1,852 lots (count) in backlog: partly identified to order. Specimens are stored in 70% ethanol denaturalized with MEC; collection labels are handwritten, laser printed, or typed. Collection is arranged systematically (Hoffman, 1980); genera and species are arranged alphabetically within families. Taxonomic coverage: 2,326 species in 593 genera and 88 families. Collection is cataloged on file cards. No individual lot numbers. Extensive holdings from the Nearctic, Central America, the Neotropics, the Palearctic, Oriental regions, and eastern Africa; some specimens from western Africa, the Pacific Islands, and Australia. Associated collections: actively growing reprint collection (contains complete diplopod literature

libraries of DeSaussure, Carl, Humbert, and Strasser).

Musée cantonal de Zoologie, Palais de Rumine Place de la Riponne 6, CP 448, CH-1005 Lausanne 17 (MZLS)

Curatorial Staff: Anne Freitag
Phone: 41-21-3163460
Fax: 41-21-3163479
E-mail: anne.freitag@serac.vd.ch

Types: none. Collection: 261 lots: 258 lots identified to family; three lots partly identified to order in backlog. Specimens are stored in 70% ethanol; collection labels are handwritten or printed with a dot-matrix printer (ribbon may not be alcohol-proof). Collection is arranged by family and geographically (two groups: Palearctics and other). Collection is not cataloged. Collection contains voucher material from Faës (gonopod slides lost) and material identified by Rothenbühler. Collection is currently stored in a depot 30 kilometers from the city. Associated collections: historical reprint collection. Holdings mainly from Europe; some holdings from the Mediterranean/northern Africa, India, Southeast Asia, and western and southern Africa.

Insect Collection of Natur-Museum Luzern, Kasernenplatz 6, CH-6003, Luzern (NMLS)

Curatorial Staff: Dr. Peter Herger/Dr. Ladislaus Reser
E-mail: peter.herger@lu.ch, ladislaus.reser@lu.ch

Very small collection.

Muséum d'Histoire Naturelle, Rue des Terreaux 14, CH-2000 Neuchâtel (MHNN)

Curatorial Staff: Jean-Paul Haenni
Phone: 41-32-7177960
Fax: 41-32-7177969
E-mail: jean-paul.haenni@unine.ch, info.museum@unine.ch
Web site: *http://www.museum-neuchatel.ch/*

Types: none. Collection: about 5,000 lots, preserved in 70% ethanol. Collection is databased. All holdings from Switzerland, collected mainly by A. Pedroli-Christen (1970–1993). Collection growth: none.

TAIWAN

No contact was established with Taiwan Forestry Research Institute (53 Nan-Hai Road, Taipei); Department of Zoology-Entomology (National Taiwan University, Taipei), Biology Institute (Tungchai University, Box 851, Taichung), Taiwan Provincial Museum (No. 2 Siang-Yang Road, Taipei), and Division of Plant Protection (Taiwan Provincial Government, Department of Agriculture, Nan-Tou). The Insect Collection (Taiwan Agricultural Research Institute, 189 Chungcheng Road, Wufeng, Taichung 41301 [TARI]; curatorial staff: Mr. Liangyih Chou) does not house a millipede collection.

National Museum of Natural Science, 1 Kuan Chien Road, Taichung 400 (NMNS)

Curatorial Staff: Mr. Kwen-Shen Lee
E-mail: kslee@mail.nmns.edu.tw

Types: none. Collection: nine lots: all unidentified. Specimens are stored in 70% ethanol; collection labels are handwritten.

Department of Life Sciences, National Chung-Hsing University, 250 Kuo-Kwang Road, Taichung 402 (NCHU)

Curatorial Staff: Dr. Sheng-Hai Wu
Phone: 886-4-22854923
Fax: 886-4-22851797
E-mail: shwu@dragon.nchu.edu.tw

Types: none. Collection: 400 lots (est.): 30 identified to family level; more than 200 in backlog. Specimens are stored in isopropanol. Collection is not organized. Estimated collection growth: 100 lots per year.

TANZANIA

No contact was established with University of Dar Es Salaam (P.O. Box 35064, Dar Es Salaam). According to K. W. Howel (in litt. to R. L. Hoffman), there are no millipede collections in Tanzania.

THAILAND

There are no diplopod collections in Thailand (data courtesy of Dr. A. Lewvanich [EMBT], Entomology and Zoology Division, Department of

Agriculture, Pathoyothin Road, Bangkhen, Bangkok 10900; e-mail: angoonl@yahoo.com).

TRINIDAD AND TOBAGO

No contact was established with International Institute of Biological Control (Gordon Street, Curepe). The following institutions do not house milliede collections: Caribbean Epidemiology Centre (16 Jamaica Boulevard, Port of Spain [CARE]; curatorial staff: Dr. Samuel Rawlins/Karen Polson), Insect Collection (Department of Biological Sciences, University of the West Indies, St. Augustine [UWIC]; curatorial staff: Dr. Christopher K. Starr), and Insect Collection (Central Experiment Station, Ministry of Agriculture, Lands and Food Production, Centeno, Via Armo Po [CEST]; curatorial staff: Ms. Cyntra Persad).

UGANDA

No contact was established with Natural History (Uganda Museum, 5-7 Kira Road, P.O. Box 365, Kampala) and Herbarium and Insect Collection (Kawanda Agricultural Research Station, P.O. Box 7065, Kampala).

UKRAINE

No contact was established with Zoological Museum (Vladimirskaya SS, Kiev [ZMKU]).

I. I. Schmalhausen Institute for Zoology, National Academy of Sciences, B. Khmelnitsky Str. 15, 252601 Kiev (SIZK)

Curatorial Staff: Dr. E. E. Perkovsky
E-mail: perkovsky@fromru.com

No millipede collection. According to Dr. Perkovsky, there are no millipede collections in Kiev, though there may be collections elsewhere in the Ukraine.

UNITED KINGDOM

No contact was established with The Yorkshire Museum (Museum Street, York, Yorkshire). The British Myriapod and Isopod Group supports research in the British Isles, organizes field meetings, produces a bulletin, and supports a recording scheme to develop distribution maps for millipedes, centipedes, and isopods in the British Isles. See *http://www.salticus.demon.co.uk/bmig/htnl/info.html.* The University Museum in Aberdeen and the Museum of Geology in Birmingham house fossil millipede material.

The following institutions do not house millipede collections: Dorset County Museum (Natural History Research Collection, High West Street, Dorchester, Dorset DT1 1XA [DORC]; curatorial staff: Mr. Richard De Peyer/Kate Hebditch), Peterborough Museum and Art Gallery (Priestgate, Peterborough PE1 1LF [PMAU]; curatorial staff: Ms. Glenys Wass), and Croydon Natural History and Scientific Society (96A Brighton Road, South Croydon, Surrey CR2 6AD [CNHS]; curatorial staff: John Greig).

The Linnean Society of London, Burlington House, Piccadilly, London, W1V 0LQ (LSUK)

Curatorial Staff: Dr. John Marsden/Dr. V. R. Southgate
Phone: 44-20-74344479
Fax: 44-20-72879364
E-mail: john@linnean.org, vrs@nhm.ac.uk

No reply was received.

Hope Entomological Collections, Oxford University Museum of Natural History, Parks Road, Oxford, OX1 3PW (OUMNH)

Curator: Prof. Stephen Simpson/Darren J. Mann
Phone: 44-1865-272976/272977
Fax: 44-1865-272970
E-mail: darren.mann@oum.ox.ac.uk
Web site: *http://www.oum.ox.ac.uk/*

Types: unknown. Dry collection (includes all myriapods): 220 specimens from two collections. The F. W. Hope/J. O. Westwood collection (including material from G. Newport and C. Darwin): 200 specimens (est.), worldwide localities, data very brief or none, mostly unidentified, some identified to genus. The J. Miers collection (donated in 1880): 20 specimens (est.), mostly from South America, data brief or none, some identified to species. Wet collection (includes all myriapods): 1,400 specimens from two collections and an ecological survey. The E. H. Eason collection (active 1949–1999): 1,000 specimens (est.) from various British localities, full locality data, all identified to species and 50 specimens from Europe also with full locality data and identified to

species. Collection is databased, and a list of species is available. The E. Taylor collection (donated 1950): 50 specimens (est.) from the Oxford area. The Wytham Ecological Survey (1960–) collection: 300 specimens from Wytham Wood, Oxford, with detailed notes on habitat and fully cross-referenced card index. Collection growth: not significant.

Cole Museum, Division of Zoology, School of Animal and Microbial Sciences, University of Reading, Reading, RG6 6AJ (CMUR)

Curatorial Staff: Dr. Steve Hopkin
E-mail: s.p.hopkin@reading.ac.uk

A small millipede collection of local common species only is currently in storage during a refurbishment program.

Natural History, Bolton Museum, Le Mans Crescent, Bolton, Lancashire, BLI ISE (BMUK)

Curatorial Staff: Steve Garland
Phone: 44-1204-332221
Fax: 44-1204-332241

Types: none. Collection: 40 lots (est.): 30 identified to family level; 10 lots in backlog. Specimens are stored in 70% ethanol; collection labels are handwritten. Collection is arranged systematically. Collection is cataloged on file cards. All specimens from local collections. Estimated collection growth: none.

Brighton Borough Council, Booth Museum of Natural History, 194 Dyke Road, Brighton, East Sussex, BN1 5AA (BMBN)

Curatorial Staff: Dr. Gerald Legg

Very small millipede collection.

Department of Natural History, The City Museum and Art Gallery, Queen's Road, Bristol, BS8 1RL (CMBK)

Curatorial Staff: Ms. Samantha Hallett
E-mail: sam_hallett@bristol-city.gov.uk

A small, unidentified collection.

University Museum of Zoology, Downing Street, Cambridge, Cambridgeshire, CB2 3EJ (CUMZ)

Curatorial Staff: Prof. M. Akam/Ray Symonds/Dr. Richard Preece
Phone: 44-1223-336650
Fax: 44-1223-336679
E-mail: umzc@zoo.cam.ac.uk

Types: 32 lots (Enghoff; Hoffman; Silvestri; Sinclair). Types are not separated from the formed collection, and no type catalog is available. Collection: 250 lots (est.): all identified at least to family. Specimens are stored in 70% IMS (industrial methylated spirits); collection labels are handwritten. Collection is arranged alphabetically by genera. Collection is cataloged in file cards, catalog books, and accession records. The catalog is computerized (specimen-based relational database); individual lot numbers have been assigned. Holdings from Central America, the Neotropics, the western Palearctic, Mediterranean/northern Africa, India, Southeast Asia, western Africa, New Zealand, and the Pacific Islands. Associated collections: reprint collection that is actively growing and microscope slides. Estimated collection growth: two lots per year.

Department of Biodiversity, National Museum and Galleries of Wales, Cathays Park, Cardiff, CF10 3NP (NMWC)

Curatorial Staff: Dr. Mike Wilson/Julian Carter
Phone: 44-29-20573324
E-mail: julian.carter@nmgw.ac.uk

Types: none. Collection: 430 lots (counted): all identified to family level. Specimens are stored in 70%–80% IMS (industrial methylated spirits); later samples have 4% propylene glycol added. Collection labels are handwritten or printed with an ink-jet printer. Collection is arranged systematically. Collection is not cataloged but is computerized (taxon-based relational database). Accession records have been kept. Individual lot numbers have been assigned. Holdings are from Europe. Estimated collection growth: fewer than 10 lots per year.

Insect Collection, Department of Natural History, National Museums of Scotland, Chambers Street, Edinburgh, EH1 1JF, Scotland (RSME)

Curatorial Staff: Dr. Graham Rotheray
Phone: 44-131-2474243
Fax: 44-131-2204819
E-mail: g.rotheray@nms.ac.uk

Small millipede collection. Most specimens are from Scotland. Note: The section of Invertebrate Palaeontology houses fossil millipede specimens

from the Paleozoic (curator: Dr. Lyall I. Anderson).

Hunterian Museum: Zoology Section, Department of Zoology, University of Glasgow, Glasgow, G12 8QQ, Scotland (HMUG)

Curatorial Staff: Margaret Reilly
E-mail: mreilly@museum.gla-ac.uk

Types: none. Collection: 50 lots (est.): 20 identified at least to family level; 30 lots in backlog. Specimens stored in 70% IMS (industrial methylated spirits); collection labels are handwritten or dot-matrix printed. Collection is arranged geographically. Collection is cataloged in accession records. All material from Europe. Associated collections: historical reprint collection. Estimated collection growth: five lots per year. Note: The museum houses fossil millipedes from the Carboniferous.

Ipswich Museum, High Street, Ipswich, IP1 3QH (IPSM)

Curatorial Staff: David Lampard
Phone: 44-1473-433546
Fax: 44-1473-433558
E-mail: david.lampard@ipswich.gov.uk

Types: none. Collection: 50+ lots (est.): all identified at least to family level. Collection is organized as part of a larger collection, including Arachnida, Isopoda, etc. Specimens are stored in 70% IMS (industrial methylated spirits); collection labels are handwritten. Collection catalog is available from Mr. Paul Lee. The entire collection is being made by Mr. Paul Lee, the UK national recorder for the British Myriapod and Isopod Group. It contains voucher material from the county of Suffolk. Estimated collection growth: two lots per year.

Department of Entomology, The Natural History Museum, Cromwell Road, London, SW7 5BD (BMNH)

Curatorial Staff: Mrs. Janet Becalloni/Mr. Paul Hillyard
Phone: 44-20-79425127
Fax: 44-20-79425190
E-mail: J.Beccaloni@nmh.ac.uk, pdh@nhm.ac.uk

Types: 800 lots (est.; Attems; Berlese; Blower; Bollman; Brade-Birks; Brolemann; Causey; Chamberlin; Demange; DeSaussure & Humbert; Enghoff; Enghoff & Golovatch; Fabricius; Gervais; Golovatch; Golovatch & Enghoff; Hoffman; Jeekel; Karsch; C. L. Koch; L. Koch; Kraus; Latreille; Lawrence; Leach; Linnaeus; Lohmander; Loomis; Lucas; Mauriès; Meinert; Minelli; Nguyen Duy-Jacquemin; Olivier; Packard; Perty; Peters; Pocock; Read; Say; Schubart; Shear; Shelley; Silvestri; Takakuwa; Tanabe; Thaler; Turk; Verhoeff). Types are currently being separated from the formed collection; no type catalog is available. Collection: 5,000 lots (est.): 4,000 (est.) identified at least to family; 1,000 lots (est.) in backlog, partly identified to order. Specimens are stored in 70% IMS (industrial methylated spirits); collection labels are handwritten or ink-jet printed (with alcohol-resistant ink). Collection is arranged systematically (Hoffman, 1980). Unidentified material is arranged geographically. Collection is cataloged in catalog books, accession records, and a species-level database, including type data. The catalog is currently being computerized at the species level. Extensive holdings from Central America, the Neotropics, the Palearctic, Oriental and Ethiopian regions, and Australia; some specimens from New Zealand, the Pacific Islands, and the Nearctic. Associated collections: historical reprint and slide collections. Estimated collection growth: five lots per year. The museum charges visiting researchers a "facilities fee" when visiting the museum's collections. Note: The Department of Palaeontology houses fossil millipedes and Cockerell types (curator: Dr. A. Ross; e-mail: A.Ross@nhm.ac.uk).

British Entomological and Natural History Society, The Pelham-Clinton Building, Dinton Pastures Country Park, Davis Street, Hurst, Reading, Berkshire, RG10 0TH (BENHS)

Curatorial Staff: John Muggleton
E-mail: jmuggleton@compuserve.com

The society does not currently maintain a collection; however, the British Myriapod and Isopod Group is planning to develop a representative reference collection at BENHS that will contain all myriapod species found in the British Isles.

Department of Zoology, Manchester Museum, The University, Manchester, M13 9PL (MMUE)

Curatorial Staff: Dr. Dmitri Logunov
E-mail: dmitri.v.logunov@man.ac.uk

Collection: unknown number of lots; collection of J. G. Blower is housed here. Note: Fossil milli-

pedes are housed in the Department of Palaeontology.

Norwich Castle Museum, Norfolk Museums and Archaeology Service, The Shirehall, Market Avenue, Norwich, Norfolk, NR1 3JQ (NCMK)

Curatorial Staff: Dr. Tony Irwin
Phone: 44-1603-493642
Fax: 44-1603-493623
E-mail: tony.irwin.mus@norfolk.gov.uk

Types: none. Collection: 200 lots (est.): partly identified to order. Specimens are stored in ethanol; collection labels are printed with a laser printer or dot-matrix printer or handwritten. The collection is not cataloged. All holdings from Europe.

Nottingham Natural History Museum, Walloton Hall, Walloton Park, Nottingham, NG8 2AE (NHMN)

Curatorial Staff: Dr. Sheila Wright
Phone: 44-115-9153900
E-mail: SheilaW@ncmg.demon.co.uk

Small millipede collection, part of collection of Nottinghamshire invertebrates created by Prof. John Wesley Carr, around 1900–1910.

Perth Museum and Art Gallery, George Street, Perth, Tayside, PH15LB (PMAG)

Curatorial Staff: Mr. Mark Simmons
Phone: 44-1738-632488
Fax: 44-1738-443505
E-mail: museum@pkc.gov.uk

Types: none. Small millipede collection and a historical reprint collection.

UNITED STATES

No contact was established with Diablo Valley College (321 Golf Club Road, Pleasant Hill, CA 94533), Clements' Museum of Exotic Insects (William B. Clements, 3004 Casteen Road, Leesburg, FL 32748-8549), Insect Collections (Sul Ross State College, Alpine, TX 79830), Collection of Insects (Box 5640, Biology, Northern Arizona University, Flagstaff, AZ 86011), Department of Entomology Collection (University of Arizona, Tucson, AZ 85721), Hawaii Volcanoes National Park (U.S. Department of the Interior, National Park Service, P.O. Box 52, Hawaii National Park, HI 96718), Museum Collections of Zion National Park (Springdale, UT 84767), Department of Biology (Entomological Museum, Utah State University, Logan, UT 84332), Department of Biology Collection (Texas A&M University, Kingsville, TX 78363), Museum Collections of Carlsbad Caverns National Park (3225 National Park Highway, Carlsbad, NM 88220), Insect Collection (Rutgers—The State University, New Brunswick, NJ 08903), Nevada State Department of Agriculture (P.O. Box 11100, Reno, NV 89510), Laboratory of Arthropod Diversity (Biology Department, Chadron State College, Chadron, NE 69337), Southern Illinois University Entomology Collection and Invertebrate Collection (Research Museum of Zoology, Southern Illinois University, Carbondale, IL 61820), and Arthropod Collection (Cincinnati Museum of Natural History, 1720 Gilbert Avenue, Cincinnati, OH 45202).

Alabama

The Insect Collection (Department of Biological Sciences, University of Alabama, Tuscaloosa, AL 35487 [UABD]; curatorial staff: Dr. G. Milton Ward) does not house a millipede collection.

Auburn University Entomological Museum, Department of Entomology, Auburn University, Auburn AL 36849 (AUEM)

Curatorial Staff: unknown

Types: none. Collection: 40 to 50 samples (data courtesy of Dr. R. M. Shelley [NCSM]).

Arizona

The Southwestern Research Station of the American Museum of Natural History (Portal, AZ 85632 [SWRS]; curatorial staff: Dr. Wade C. Sherbrooke) and the Frank M. Hasbrouck Insect Collection (Department of Zoology, Arizona State University, Tempe, AZ 85281-3571 [ASUT]; curatorial staff: Dr. Michael E. Douglas) do not house millipede collections.

Grand Canyon National Park, Museum Collection, P.O. Box 129, Grand Canyon, AZ 86023 (GCNP)

Curatorial Staff: Colleen Hyde
Phone: 1-928-638-7769
Fax: 1-928-638-7769
E-mail: Colleen_Hyde@nps.gov

Collection consists of three unidentified millipedes.

Arkansas

Department of Entomology Collection, University of Arkansas, Fayetteville, AR 72701 (UADE)

Curatorial Staff: Dr. J. B. Whitfield. Collection Manager: Dr. J. K. Barnes
Phone: 1-479-575-2482
E-mail: jwhifie@comp.uark.edu

Types: none. Collection: 97 lots (count): none identified. Specimens are stored in 70% ethanol; collection labels are handwritten or printed (method unknown). Collection is not cataloged. All specimens from eastern North America.

California

The following institutions do not house millipede collections: Death Valley Museum (P.O. Box 579, Death Valley National Park, Death Valley, CA 92328 [DVNM]; curatorial staff: Blair Davenport), Museum Collections of Pinnacles National Monument (5000 Highway 146, Paicines, CA 95043 [PINN]; curatorial staff: Tom Leatherman), and Museum Collections of Joshua Tree National Monument (74485 National Monument Drive, Twentynine Palms, CA 92277 [JTNM]; curatorial staff: Heidi Beck).

Desert Studies Center, California Desert Studies Consortium, % Department of Biological Science, California State University, Fullerton, P.O. Box 6850, Fullerton, CA 92834-6850 (CSDS)

Curatorial Staff: Prof. William Presch
Phone: 1-714-278-2428
Fax: 1-714-278-2428
E-mail: Wpresch@fullerton.edu
Web site: *http://biology.fullerton.edu/facilities/dsc/zzyzx.html*

Small millipede collection with representatives of local species; not cataloged.

Essig Museum of Entomology, 201 Wellman Hall #3112, University of California, Berkeley, CA 94720 (EMEC)

Curatorial Staff: Cheryl B. Barr
Phone: 1-510-643-0804
Fax: 1-510-642-0804
E-mail: cbarr@nature.berkeley.edu

Type: one (*Polydesmus sastianus* Chamberlin). Type is separated from the collection. Collection: 313 lots (count): unknown number of unidentified lots in backlog (sorted to order). Specimens are stored in 70%–75% ethanol; collection labels are offset printed. Collection is arranged alphabetically by family and genera. Collection is not cataloged, though plans are to computerize (taxon-based relational database) in the future. Most material is from western North America, and some specimens are from Central America. Associated collections: actively growing reprint collection.

The Bohart Museum of Entomology, University of California, Davis, CA 95616 (UCDC)

Curatorial Staff: Dr. Lynn S. Kimsey; Collection Manager: Steve Heydon
Phone: 1-530-752-0493
Fax: 1-530-752-9464
E-mail: slheydon@ucdavis.edu

Types: 43 lots (Buckett & Gardner; Gardner; Gardner & Casey; Gardner & Shelley; Murray; Shelley; Shelley & Bauer; Wood). Types are separated from the formed collection, and a type catalog is available from the collection manager. Collection: 4,000 lots (est.): 3,900 identified to family; 100 lots in backlog. Specimens are stored in 75% ethanol; collection labels are printed with laser printer. Collection is arranged systematically by Rowland M. Shelley (NCSM) following Hoffman (1980). Collection is not cataloged. Extensive holdings from western North America, Central America, and the Neotropics; some material from eastern North America, the West Indies, Asia, and Australia. Associated collections: historical reprint and microscope slide and actively growing bulk sample collections. Estimated collection growth: 25 lots per year.

Fresno Co. Department of Agriculture, 1730 South Maple, Fresno, CA 93702 (FCDA)

Curatorial Staff: Dr. Norman J. Smith

Types: none. Collection: 14 lots; 10 identified to family level. Specimens are stored in 70% isopropyl alcohol; labels are handwritten and typed. Collection is not cataloged. Tropical millipedes have been sent to Rowland M. Shelley (NCSM). Material is mainly from western North America, Central America, and eastern Africa.

Entomological Collections, California State University at Long Beach, Long Beach, CA 90840 (CSLB)

Curatorial Staff: E. L. Sleeper

No millipede collection (transferred to Los Angeles County Museum; data courtesy of Dr. Rowland Shelley [NCSM]).

Insect Collection, Natural History Museum of Los Angeles County, 900 Exposition Boulevard, Los Angeles, CA 90007 (LACM)

Curatorial Staff: Dr. Brian Brown
Phone: 1-213-763-3363
Fax: 1-213-746-2999
E-mail: bbrown@nhm.org
Web site: *http://www.nhm.org/research/entomology*

Types: none. Collection: 100 to 200 lots of specimens stored in ethanol and 3,000 (est.) dry and pinned xystodesmid millipedes from California. Pinned collection currently with Dr. Rowland Shelley (NCSM). The alcohol collection is not organized.

Department of Biology, Californa State University at Northridge, Northridge, CA 91330-8303 (SFVS)

Curatorial Staff: Dr. David Gray
Phone: 1-818-677-7653
Fax: 1-818-677-2034
E-mail: dave.gray@csun.edu

Small millipede collection.

Department of Entomology, Entomology Research Museum, University of California–Riverside, Riverside, CA 92521 (UCR)

Curatorial Staff: Dr. Doug Yanega
Phone: 1-909-787-4315
E-mail: dyanega@pop.ucr.edu

Small millipede collection (fewer than 30 species). Collection contains the majority of local taxa.

California State Collection of Arthropods/California Department of Food and Agriculture, 3294 Meadowview Road, Sacramento, CA 95832 (CSCA)

Curatorial Staff: Dr. Chuck Bellamy
E-mail: cbellamy@cdfa.ca.gov

Types: none. Collection: 146 lots (count): 81 lots identified to family; 65 lots identified to order in backlog. Specimens are preserved in isopropyl alcohol; collection labels are printed with a laser printer, typed, or handwritten. Collection is arranged alphabetically by family. Collection is not cataloged. Associated collections: historical reprint collection. Holdings mainly from western North America; some holdings from eastern North America, the West Indies, India, and the Pacific Islands. Collection growth: variable.

Department of Invertebrate Zoology, Santa Barbara Museum of Natural History, 2559 Puesta del Sol Road, Santa Barbara, CA 93105 (SBMN)

Curatorial Staff: Michael S. Caterino
Phone: 1-805-682-4711
Fax: 1-805-563-0574
E-mail: mcaterino@sbnature2.org

Types: none. Collection: 60 lots: partly identified to order in backlog. Specimens are preserved in 70%–80% ethanol; collection labels are printed with a laser printer or handwritten. Collection is not cataloged. Associated collections: historical reprint and actively growing bulk sample collections. Holdings from western North America. Estimated collection growth: 20 lots per year.

San Diego Natural History Museum, P.O. Box 121390, San Diego, CA 92112-1390 (SDMC)

Curatorial Staff: Dr. Paisley S. Cato
Phone: 1-619-255-0226
Fax: 1-619-232-0246
E-mail: pcato@sdnhm.org

Types: none. Collection consists of fewer than 119 lots. Backlog is partly identified to order. Specimens are preserved in 70% ethanol; collection labels are handwritten. Collection is not cataloged. Collection has been in storage lately because of construction. Material mainly from western North America; some material from eastern North America and Central America.

Department of Entomology, California Academy of Sciences, Golden Gate Park, San Francisco, CA 94118 (CAS)

Curatorial Staff: Dr. Charles Griswold
Phone: 1-415-750-7231
Fax: 1-415-750-7228
E-mail: cgriswold@calacademy.org

Types: 50 lots (Causey; Chamberlin; Enghoff; Gressit; Hoffman; Hoffman & Burkhalter; Shear; Shelley). Types are separated from the formed collection, and a type catalog is available electronically at

www. calacademy. org/ research/ entomology/ types/ diplofan.htm. Collection: 12,000 lots (est.): 8,000 identified at least to family; 4,000 lots in backlog, partly identified to order. Specimens are stored in 75% ethanol; collection labels are handwritten, dot-matrix printed, photo-offset printed, or typed. Collection is arranged within orders alphabetically by family, genus and species. All orders except Siphoniulida are represented in the collection. Extensive holdings from western North America, Central America, the Neotropics, India, Ethiopian regions (Madagascar), and Australia; some material from eastern North America, Europe, Asia (China), Southeast Asia, New Zealand, and the Pacific Islands. Associated collections: small historical reprint collection. Estimated collection growth: 250 lots per year.

J. Gordon Edwards Entomology Museum, San Jose State University, One Washington Square, San Jose, CA 95192-0100 (SJSC)

Curatorial Staff: Stanley Vaughn
E-mail: sevaughn@email.sjsu.edu

Small millipede collection.

San Joaquin County Agricultural Commissioner's Office, 1868 E. Hazelton Avenue, Stockton, CA 92505 (SJAC)

Curatorial Staff: Laurence Allen
Phone: 1-209-468-3300
Fax: 1-209-468-3300
E-mail: jallan@co.san-joaquin.ca.us

Types: none. Collection 10 lots: all identified to family. Collection is arranged systematically. Estimated collection growth: one lot per year.

Colorado

The following institutions do not house millipede collections: USDA Forest Service, Rocky Mountain Research Station (2150A Centre Avenue, Fort Collins, CO 80526-1891 [RMSC]; curatorial staff: Janine E. Powell); Museum Collections, Colorado National Monument (Fruita, CO 81521 [CNMC]; curatorial staff: Lisa Claussen); and May Natural History Museum (710 Rock Creek Canyon Road, Colorado Springs, CO 80926 [MCSC]; curatorial staff: Mr. John M. May).

University of Colorado Museum, Campus Box 218, Boulder CO 80309 (UCMC)

Curatorial Staff: Rosanne Humphrey
Phone: 1-303-492-7359
Fax: 1-303-735-0128
E-mail: rosanne.humphrey@colorado.edu

Types: none. Collection: 93 lots (count): 42 identified at least to family level; 40 lots (est.) in backlog, partly identified to order level. Specimens are stored in ethanol; collection labels are handwritten or typed. Collection is arranged by catalog numbers (UMC number). Collection is cataloged on file cards and in catalog books. Individual lot numbers have been assigned. Main holdings from the Nearctic, Mexico, and Asia (Taiwan and Japan). Associated collections: actively growing reprint collection. Annual collection growth: unspecified.

Denver Museum of Natural History, 2001 Colorado Boulevard, Denver, CO 80205-5798 (DNHC)

Curatorial Staff: Dr. Paula Cushing/Bill Alther
Phone: 1-303-370-6442
Fax: 1-303-331-6492
E-mail: PCushing@dmnh.org

Types: none. Collection: 10 lots (est.): not identified to family or order level. Specimens are stored in 75% ethanol; collection labels are handwritten or printed with a dot-matrix printer. Collection is not cataloged. Material from the Nearctic.

C. P. Gillette Arthropod Biodiversity Museum, Department of Entomology, Colorado State University, Fort Collins, CO 80523 (CSUC)

Curatorial Staff: Dr. B. C. Kondratieff
Phone: 1-970-491-7314
Fax: 1-970-491-3862
E-mail: bkondrat@ceres.agsci.colostate.edu

Types: none. Collection: 80 lots (est.) from western North America.

Connecticut

The Department of Entomology Collection (Connecticut Agriculture Experiment Station, Box 1106, New Haven, CT 06504 [CAES]; curatorial staff: Louis A. Magnarelli) does not house a millipede collection.

Yale University, Peabody Museum of Natural History, 170 Whitney Avenue, P.O. Box 208118, New Haven, CT 06520-8118 (PMNH)

Curatorial Staff: Drs. Raymond Pupedis/Leonard E. Munstermann
Phone: 1-203-432-5001
Fax: 1-203-432-9816
E-mail: raymond.pupedis@yale.edu

Types: four lots (Silvestri). Types are separated from the rest of the collection; no type catalog is available. Collection: 555 vials (est.): 370 vials identified to family; 185 vials partly identified to order in backlog. Specimens are stored in ethanol; collection labels are typed or handwritten. Collection is arranged systematically. The collection is partly cataloged in catalog books. No individual lot numbers have been assigned. Associated collections: historical reprint, microscope slide, photograph, print, slide, and bulk sample collections. The microscope slide and bulk sample collections are actively growing. Main holdings from the Nearctic; some holdings from other regions. Note: The museum houses fossil millipede material from Mazon Creek in the Department of Invertebrate Paleontology.

Department of Ecology and Evolutionary Biology, Box U-43, University of Connecticut, Storrs, CT 06269-3043 (UCMS)

Curatorial Staff: Dr. Jane O'Donnell
Phone: 1-860-486-4451
Fax: 1-860-486-6364
E-mail: bioadm4@uconnvm.uconn.edu

Types: none. Collection: 392 lots (est.): formed collection consists of 146 lots, with 12 identified species; 234 lots (count) in backlog, partly identified to order. Specimens are stored in 70% ethanol; collection labels are handwritten or typed. Collection is arranged alphabetically. Collection is electronically cataloged (taxon-based flat file). Main holdings from eastern North America; some material from the West Indies, the Neotropics, Europe, and western and southern Africa. Associated collections: historical reprint collection. Estimated collection growth: fewer than five lots per year.

Delaware

The following institutions do not house millipede collections: Delaware Museum of Natural History (4840 Kennett Pike, Greenville, DE 19807), Insects of Delaware (Lumus Pond State Park, Whale Wallow Nature Center, Route 71, Bear, DE 19701 [LPSP]; curatorial staff: Florence Taylor), and Department of Entomology and Applied Ecology Collection (University of Delaware, Newark, DE 19711 [UDCC]; curatorial staff: Dr. Charles Bartlett).

Washington, D.C.

Smithsonian Institution, NHB 105, Washington, D.C. 20013-7012 (USNM)

Curatorial Staff: Dr. J. A. Coddington/Dana DeRoche
Phone: 1-202-357-4108/357-4148
Fax: 1-202-786-2894
E-mail: Coddington.jon@nmnh.si.edu, Deroched@nmnh.si.edu

Types: 1,604 lots (Attems; Bollman; Brandt; Brolemann; Causey; Chamberlin; Chamberlin & Hoffman; Chamberlin & Mulaik; Chamberlin & Wang; Cook; Cook & Loomis; Cope; Demange; Girard; Hoffman; Hoffman & Orcutt; Johns; Karsch; Keeton; Kenyon; Kraus; Loomis; Loomis & Davenport; Loomis & Hoffman; McNeill; Pierce; Pocock; Ryder; Shelley; Silvestri; Verhoeff; Wood). Types are separated from the formed collection. A type catalog draft is available from the curator on request. Collection: 25,000 lots (est. from 2,000 0.5-L jars): 21,000 (est.) identified to family, 3,500 in backlog, identified to order or class. Material is preserved in ethanol; collection labels are printed with a dot-matrix printer, typed, or handwritten. Collection is arranged alphabetically by order, family, and genus. Collection is cataloged on accession records and computerized (relational database, available on request as spreadsheet); electronic data will be moved to database software system KE-EMu (*http://www.kesoftware.com/* and *http://www.kesoftware.com/emu/*). In descending order of frequency, holdings from the Nearctic (813 jars), Central America, Oriental regions, Europe, the Caribbean, South America, Africa, Oceania, Asia, and Australian and Ethiopian (39 jars) regions. Associated collections: historical reprint, microscope slide, photograph, print, slide, and bulk sample collections. This collection houses the Bollman, Loomis, Chamberlin, and a small part of the Causey (see FSCA) collections. The Chamberlin collection was originally housed at the University of Utah. Note: Fossil millipedes (Devonian, Kjellesvig-Waering types, Mesozoic, and other fossil material) are curated in the Department of Paleobiology.

Florida

The following institutions do not house millipede collections: American Entomological Institute

(3005 SW 56th Avenue, Gainesville, FL 32608 [AEIC]; curatorial staff: Dr. David Wahl); Museum Collections of Everglades National Park (40001 State Road 9336, Homestead, FL 33034 [EGNP]; curatorial staff: Nancy J. Russell); Archbold Biological Station Collection (P.O. Box 2057, Lake Placid, FL 32852-2057 [ABS]; curatorial staff: Dr. Mark Deyrup); Entomology, Center for Water Quality (College of Engineering Sciences, Technology and Agriculture, Florida A&M University, Tallahassee, FL 32307 [FAMU]; curatorial staff: Dr. Manuel Pescador); and Allyn Museum of Entomology (3621 Bay Shore Road, Sarasota, FL 34234 [FSMC]; curatorial staff: Dr. Jacqueline Miller [Lepidoptera collection only]).

Florida State Collection of Arthropods, Division of Plant Industry, P.O. Box 147100, Gainesville, FL 32614 (FSCA)

Curatorial Staff: Dr. G. B. Edwards
Phone: 1-352-372-3505
Fax: 1-352-334-0737
E-mail: edwardg@doacs.state.fl.us

Types: 372 lots (Carl; Causey; Causey & Tiemann; Chamberlin; Cook; Cook & Loomis; Enghoff; Hoffman; Hoffman & Howell; Latzel; Loomis; Loomis & Schmitt; Shelley; Wood). Types are separated from the formed collection, and a type catalog is available from the curator. Collection contains numerous apparent manuscript names of Causey's that are labeled as holotypes and are not included in the type lot number given above. Collection: 25,000 lots (est.): 22,500 (est.) identified at least to family; 2,500 lots (est.) in backlog, mostly identified to order. Specimens are stored in isopropanol; collection labels are handwritten, laser printed, or typed on a typewriter. Collection is arranged by order; family level and below is arranged alphabetically. Collection is electronically cataloged (taxon-based flat file). Holdings include most of Causey's collection and voucher material from Loomis, Muma, Johnson, and others. Extensive holdings from Central America and the Nearctic; some specimens from the Neotropics. Associated collections: actively growing reprint and bulk sample collections. Estimated collection growth: 100 lots per year.

Arthropod Collection, Biology Department, University of Central Florida, P.O. Box 25000, Orlando, FL 32816-2368 (UCFC)

Curatorial Staff: Stuart M. Fullerton

Types: none. Collection: 20 to 30 lots (est.). Specimens are stored in 70% isopropanol; collection labels are handwritten or laser printed.

Georgia

Museum of Natural History, Entomology Collection, University of Georgia, Athens, GA 30602 (UGCA)

Curatorial Staff: Dr. Joseph V. McHugh/Cecil L. Smith
Phone: 1-706-542-3574
Fax: 1-706-542-2279
E-mail: jmchugh@bugs.ent.uga.edu, clsmith@uga.edu

Types: none. Collection: 399 lots: 341 lots identified to family; 58 lots in backlog. Collection is arranged systematically to family level. Collection is not cataloged. Most holdings from Georgia and other southeastern states. Associated collections: historical reprint collection. Estimated collection growth: less than 25 lots per year.

Columbus State University, Department of Biology, 151 LeNoir Hall, Columbus, GA 31907 (COLST)

Curatorial Staff: Prof. George Stanton
Phone: 1-706-568-2065
Fax: 1-706-569-3133
E-mail: stanton_george@colstate.edu

Small millipede collection.

Hawaii

Department of Entomology (College of Tropical Agriculture, University of Hawaii, Manoa, 3050 Maile Way, Honolulu HI 96822 [UHM]; curatorial staff: Kenneth Kaneshiro) does not house a millipede collection.

Division of Plant Industry, Hawaii Department of Agriculture, 1428 South King Street, Honolulu, HI 96814 (HDOA)

Curatorial Staff: Mr. Bernarr Kumashiro
E-mail: Benarr.R.Kumashiro@hawaii.gov

Collection: eight lots, all identified to family. Specimens are maintained in ethanol; collection labels are printed with a laser printer or handwritten. Collection is not cataloged. Associated collections: historical reprint and photograph, print, and slide collections. Estimated collection

growth: one lot per year. Holdings from the Pacific Islands.

Department of Entomology, Bishop Museum, 1525 Bernice Street, Honolulu, HI 96817-2704 (BPBM)

Curatorial Staff: Tino Gonsalves
Phone: 1-808-848-4196
Fax: 1-808-847-8252
E-mail: tino@bishopmuseum.org

Types: two lots (Hoffman; Shear). Types are separated from the formed collection; type catalog is available at *http://www.bishopmuseum.org/research/natsci/ento/arthrotypesearch.html*. Collection: 209 lots (counted): 193 identified to family; 16 lots partly identified to order in backlog. Specimens are stored in 70% ethanol; collection labels are printed with an ink-jet printer or handwritten. Collection is arranged alphabetically by order, then by family. Collection is not cataloged. Accession records have been kept. No individual lot numbers have been assigned. Associated collections: historical and actively growing reprint and bulk sample collections. Main holdings from the Pacific Islands; some holdings from the Nearctic. Estimated collection growth: unknown. This collection is part of a historic Hawaiian collection from the 1890s (collected by R. C. L. Perkins).

Idaho

The Department of Biology (Boise State University, Boise, ID 83725 [BIDA]; curatorial staff: Dr. Ian Robertson) does not house a millipede collection.

Orma J. Smith Museum of Natural History, Albertson College of Idaho, Caldwell, ID 83605 (CIDA)

Curatorial Staff: Mr. William H. Clark
Phone: 1-208-459-5507
Fax: 1-208-454-2077
E-mail: bclark@acofi.edu

Types: none. Collection: 1,000 lots (est.): 50 identified at least to family; 1,050 lots (est.) in backlog, partly identified to order. Specimens are stored in 70% ethanol; collection labels are handwritten, printed with a laser printer, or typed. Collection is arranged alphabetically by family and genera. Collection is not cataloged. Plans to computerize (specimen-based relational database) are under way. Holdings mainly from Mexico (Baja California); some material from western North America (Idaho). Associated collections: actively growing reprint and bulk sample collections. Estimated collection growth: 100 lots per year.

W. F. Barr Entomology Collection, Entomology Division, Department of Plant, Soil and Environmental Sciences, University of Idaho, Moscow, ID 83844-2339 (WFBM)

Curatorial Staff: Frank W. Merickel
Phone: 1-208-885-7079
Fax: 1-208-885-7760
E-mail: fmerickel@uidaho.edu

Small millipede collection, mostly unidentified.

Idaho Museum of Natural History, Campus Box 8044, Idaho State University, Pocatello, ID 83209 (ICIS)

Curatorial Staff: Dr. Stefan Sommer
Phone: 1-208-282-5841
Fax: 1-208-282-5960
E-mail: sommstef@isu.edu

Currently no millipede collection; collecting efforts are under way.

Illinois

Department of Biological Sciences Collection (Western Illinois University, Macomb, IL 61455 [WIUC]; curatorial staff: Dr. Richard Anderson) and Department of Biological Sciences (Illinois State University, Normal, IL 61761 [ISUC]; curatorial staff: Dr. Douglas Whitman) do not house millipede collections. The Burpee Museum of Natural History (737 North Main Street, Rockford IL 61103); the Illinois State Museum (Spring and Edwards Streets, Springfield IL 62706); and the Department of Geology, University of Illinois at Urbana–Champaign (245 Natural History Building, 1301 West Green Street, Urbana, IL 61801) each house fossil millipede collections only.

Eastern Illinois University, 600 Lincoln Avenue, Department of Biological Sciences, Charleston, IL 61920 (EIUC)

Curatorial Staff: Dr. Richard Funk
Phone: 1-217-581-3126
E-mail: cfrcf@eiu.edu

Types: none. Collection: 216 lots: 115 lots identified to family (all identified by Shelley

[NCSM]); 101 lots in backlog. Specimens are stored in 70% ethanol; collection labels are typed or handwritten. Collection is arranged systematically. Collection is not cataloged. No individual lot numbers. Main holdings from eastern North America; some from western North America. Estimated collection growth: 20 lots per year.

Illinois Natural History Survey Insect Collection, 607 East Peabody Drive, Champaign, IL 61820 (INHS)

Curatorial Staff: Colin Favret
Phone: 1-217-244-2149
Fax: 1-217-333-4949
E-mail: crf@uiuc.edu

Types: 27 lots (Causey; Pocock; Williams & Hefner). Types are separated from the formed collection. A type catalog is available at *http://www.inhs.uiuc.edu/cbd/collections/insect/insectintro.html*. Collection: 1,432 lots (count): 820 identified to family; 612 lots in backlog. Specimens are stored in 70% ethanol; collection labels are handwritten, typed, and printed with a dot-matrix printer. Collection is arranged alphabetically by order, then family, genus, and species. Collection is electronically cataloged (lot- or specimen-based relational database) and available at *http://www.inhs.uiuc.edu/cbd/collections/insect.html*. Individual lot numbers have been assigned. Material mainly from eastern North America; some material from western North America, Central America, and the Neotropics. Estimated collection growth: 10 lots per year.

Insect Collection, Field Museum of Natural History, 1400 South Lake Shore Drive, Chicago, IL 60605 (FMNH)

Curatorial Staff: Dr. Petra Sierwald
Phone: 1-312-665-7744/7742
Fax: 1-312-665-7754
E-mail: psierwald@fieldmuseum.org
Web site: *http://www.fmnh.org/*

Types: 300 types, 180 species (Chamberlin; Gervais; Golovatch, Vohland, & Hoffman; Hoffman; Loomis; Mauriès; Shelley). Types are separated from the formed collection, and a type catalog is forthcoming. Collection: 7,000 lots (est.): 5,500 identified to family level; 1,216 (count) in backlog partly identified to order. Specimens are maintained in 70% or 90% ethanol; collection labels are printed with a laser printer, typed, or handwritten. Collection is arranged alphabetically by families within each of the 15 millipede orders; all orders are represented. Catalog is computerized (lot- or specimen-based flat file). Associated collections: actively growing reprint and extensive bulk sample collections. Index card catalog of millipede species (duplicate of the Paris museum [MNHN] iconographie) is maintained. Extensive holdings from the Nearctic, Central America, the Neotropics, and southern Africa; some material from the West Indies, the Palearctic, Oriental regions, Australia, New Zealand, the Pacific Islands, and western and eastern Africa. Collection growth: 300 lots per year. Note: An extensive collection of fossil millipede specimens from Mazon Creek (Pennsylvanian) are housed in the Geology Department; collection manager: Charlene Fricker (cfricker@fieldmuseum.org).

Chicago Academy of Sciences, Peggy Notebaert Nature Museum, 2430 North Clark Street, Chicago, IL 60614 (CASM)

Curatorial Staff: Steve Sullivan
Phone: 1-773-755-5100
E-mail: ssullivan@naturemuseum.org

Collection: 10 lots: neither identified nor cataloged. Specimens are stored in ethanol or dried. Collection labels are handwritten.

Indiana

The following institutions do not house millipede collections: Department of Biology Collection (Indiana University, Bloomington, IN 47401 [IUIC]; curatorial staff: Jennifer Tarter); Indiana Department of Natural Resources, Division of Entomology (402 West Washington Street, Room W-290, Indianapolis, IN 46204 [ISMC]; curatorial staff: Dr. Robert D. Waltz); and Entomology Research Collection (Department of Entomology, Purdue University, West Lafayette, IN 47907 [PURC]; curatorial staff: Dr. Arwin V. Provonsha).

Iowa

The Saint Ambrose College Collection (Department of Biology, St. Ambrose College, Davenport, IA 52803 [SACC]; curatorial staff: Dr. John Horn) does not house a millipede collection.

Iowa State University Insect Collection, Department of Entomology, Iowa State University, Ames, IA 50010-3222 (ISUI)

Curatorial Staff: Dr. Greg Courtney

Phone: 1-515-294-4017
Fax: 1-515-294-5957
E-mail: gwcourt@iastate.edu

Types: none. Collection: 100 lots (est.): all identified to order but none to family. Specimens are stored in 75% ethanol; collection labels are handwritten. Collection is not cataloged. All material from North America (Iowa). Estimated collection growth: none.

Kansas

The following institutions do not house millipede collections: Collection of Insects (Sternberg Museum, Fort Hays State University, Hays, KS 67601 [FHKS]; curatorial staff: Dr. Richard Packauskas), State Biological Survey of Kansas (Invertebrates Collection, 2045 Constant Avenue, Campus West, University of Kansas, Lawrence, KS 66044 [KSBS]; curatorial staff: Dr. Paul Liechti), and Department of Entomology Collection, Kansas State University (Manhattan, KS 66502 [KSUC]; curatorial staff: Dr. Gregory Zolnerowich).

Division of Entomology, University of Kansas Natural History Museum, 1460 Jayhawk Boulevard—Snow Hall, University of Kansas, Lawrence, KS 66045-7523 (SEMC)

Curatorial Staff: Dr. James S. Ashe/Dr. Michael S. Engel; Collection Manager: Dr. Zachary H. Falin
Phone: 1-785-864-3034
Fax: 1-785-864-5260
E-mail: ashe@ku.edu, msengel@ku.edu, ksem@ku.edu
Web site: *http://www.nhm.ku.edu/research.html*

Types: unknown. Collection: 1,500 lots (est.): 50 lots (est.) identified to family. Specimens are stored in 80% ethanol; collection labels are printed with a laser or dot-matrix printer, typed, or handwritten. Collection is arranged alphabetically by species. Collection is not cataloged. No individual lot numbers have been assigned. Associated collections: historical bulk sample collection. Most holdings from the Nearctic, particularly western North America; some holdings from the Neotropics. Note: The Division of Invertebrate Paleontology of the University of Kansas Natural History Museum houses fossil millipede specimens.

Kentucky

Department of Biology Insect Collection, University of Louisville, Louisville, KY 40292-0001 (ULKY)

Curatorial Staff: Dr. Charles V. Covell, Jr.
Phone: 1-502-852-5942
Fax: 1-502-852-0725
E-mail: covell@louisville.edu

Types: none. Collection: 100 lots (est.): none identified. Specimens are stored in 70% ethanol; collection labels are handwritten. Collection is arranged by class only. Collection is not cataloged. Holdings are from eastern North America. Associated collections: historical reprint collection and historical bulk sample collection.

Louisiana

Louisiana State Arthropod Museum, 402 Life Sciences Building, Department of Entomology, Louisiana State University, Baton Rouge, LA 70803 (LSAM)

Curatorial Staff: Victoria Bayless
Phone: 1-225-578-1838
Fax: 1-225-578-1643
E-mail: vmosele@lsu.edu

Types: none. Collection: 50 lots (est.): few specimens each and bulk samples of a few hundred unsorted millipedes. Specimens are stored in ethanol; collection labels are printed with a laser printer, typed, and handwritten. Collection is computerized (taxon-based relational database). Associated collections: historical reprint collection and actively growing Berlese bulk sample collection. Material mainly from eastern North America, Central America, the Neotropics, western Africa, and New Zealand. Estimated collection growth: 20 lots per year.

Maine

The Entomological Laboratory Collection (Maine Forest Service, 50 Hospital Street, Augusta, ME 04330 [ELMF]; curatorial staff: Richard G. Dearborn) and the Department of Entomology Collection (University of Maine, Orono, ME 04473 [UMDE]; curatorial staff: Dr. Stephen A. Woods) do not house millipede collections.

Maryland

The USDA-APHIS-PPQ, National Identification Services (4700 River Road, Unit 133, Riverdale,

MD 20737 [APHI]; curatorial staff: Mr. J. F. Cavey) and the Department of Entomology Collection (University of Maryland, College Park, MD 20742 [UMDC]; curatorial staff: Dr. Jeffrey W. Shultz) do not house millipede collections.

Massachusetts

The Department of Entomology (Fernald Hall, University of Massachusetts, Amherst, MA 01003 [UMEC]; curatorial staff: Benjamin B. Normark) does not house a millipede collection.

Museum of Comparative Zoology, Invertebrate Department, Harvard University, 26 Oxford Street, Cambridge, MA 02138 (MCZ)

Curatorial Staff: Dr. Gonzalo Giribet/Laura Leibensperger
Phone: 1-617-495-2447
Fax: 1-617-495-5667
E-mail: lleibens@oeb.harvard.edu

Types: 1,600 lots (est.), including paratypes (Attems; Causey; Chamberlin; Cook & Loomis; Enghoff; Hoffman; Jacot; Keeton; Latzel; Loomis; Packard; Pérez-Asso; Shear; Shelley). Types are separated from the formed collection, and a type catalog is available at *http://www.mcz.harvard.edu/Departments/InvertZoo/myriapod_col.htm*. Collection: 5,000 lots (est.): 3,000 (est.) identified at least to family; 2,000 lots (est.) in backlog, partly identified to order. Specimens are stored in 80%–85% ethanol; collection labels are handwritten, daisy-wheel printed, and typed. Collection is arranged systematically by order and within order alphabetically by family and genus. Collection is cataloged (types only) in file cards. Extensive holdings from the Nearctic, Central America, the Neotropics, Southeast Asia, Ethiopian regions, and the Pacific Islands; some specimens from the Palearctic, India, Australia, and New Zealand. Associated collections: actively growing reprint collection and bulk sample collection. Estimated collection growth: 5 to 10 lots per year. Note: The Department of Invertebrate Paleontology houses a few fossil millipede specimens; collection manager: Dr. Fred Collier.

Michigan

The Cranbrook Institute of Science (Bloomfield Hills, MI 48013 [CISM]; curatorial staff: Mark Uhen/Carole DeFord) and Kalamazoo Nature Center (7000 North Westnedge Avenue, Kalamazoo, MI 49009-6309; curatorial staff: Janet Wright; all collection material from Kalamazoo Public Museum [KPMC] was transferred here) do not house millipede collections.

Division of Insects, Museum of Zoology, University of Michigan, Ann Arbor, MI 48109-1079 (UMMZ)

Curatorial Staff: Mr. Mark F. O'Brien
Phone: 1-734-647-2199
Fax: 1-734-763-4080
E-mail: mfobrien@umich.edu

Types: none. Collection: 250 lots (est.): 230 identified at least to family level (most determined by R. M. Shelley [NCSM] and R. L. Hoffmann [VMNH]); 20 lots (est.) in backlog. Specimens are stored in 70% ethanol; labels are handwritten, dot-matrix printed, laser printed, or typed. Collection is arranged alphabetically. Collection is not cataloged. Material from the Nearctic, Central America, the Neotropics, Asia, Southeast Asia, and Australia. Estimated collection growth: fewer than five lots per year.

Department of Entomology Collection, Michigan State University, East Lansing, MI 48824-1115 (MSUC)

Curatorial Staff: Dick Snider/Renate Snider
E-mail: snider@msu.edu, sniderr@msu.edu

Small millipede collection.

Minnesota

Department of Biology Collection, St. Cloud State University, St. Cloud, MN 56301 (SCSC)

Curatorial Staff: Dr. Ralph Gundersen
Phone: 1-320-255-4136
E-mail: rgundersen@stcloudstate.edu

Collection: 5 to 10 lots, unidentified; from Bolivia and Ecuador.

University of Minnesota Insect Collection, Department of Entomology, 219 Hodson Hall, 1980 Folwell Avenue, St. Paul, MN 55108 (UMSP)

Curatorial Staff: Dr. Philip J. Clausen
Phone: 1-612-624-1254
Fax: 1-612-625-5299
E-mail: claus004@tc.umn.edu

Types: none. Collection: 742 lots (count): 677 identified at least to family level; 65 lots (count) in backlog, all identified to order level. Specimens

are stored in 80% ethanol; collection labels are handwritten, laser printed, or typed. Collection is arranged alphabetically by family within each order. Collection is cataloged on file cards. Holdings mainly from eastern North America; some specimens from western North America, Central America, and the Neotropics. Estimated collection growth: two lots per year.

Science Museum of Minnesota, 30 East 10th Street, St. Paul, MN 55101 (SMPM)

Curatorial Staff: Dr. Richard J. Oehlenschlager
E-mail: dicko@smm.org

Collection: a few pinned specimens, two undetermined Spirobolidae from Michigan, five undetermined Polydesmidae from Michigan and Wisconsin, and one undetermined spirostreptid from India.

Mississippi

The University of Mississippi Insect Collection (Department of Biology, University of Mississippi, University, MS 38677 [UMIC]; curatorial staff: Dr. Paul K Lago) does not house a millipede collection.

Mississippi Entomological Museum, Box 9775, Mississippi State, MS 39762 (MEMU)

Curatorial Staff: Dr. Richard L. Brown/Terence L. Schiefer
Phone: 1-662-325-2085
Fax: 1-662-325-8837
E-mail: moth@ra.msstate.edu

Types: none. Collection: 420 lots: 300 identified to family level; 120 in backlog. Specimens are stored in 75% ethanol; collection labels are typed. Collection is arranged alphabetically by order and family. Collection is not cataloged. Material from eastern North America. Collection growth: six lots per year.

Missouri

The St. Louis Science Center (5050 Oakland Avenue, St. Louis, MO 63110 [SLSC]; curatorial staff: Melinda Frillman) does not house a millipede collection.

W. R. Enns Entomology Museum, Department of Entomology, 1-87 Agriculture Building, University of Missouri, Columbia, MO 65211 (UMRM)

Curatorial Staff: Dr. Robert W. Sites/Kristin B. Simpson
Phone: 1-573-882-2345/2419
Fax: 1-573-882-1469
E-mail: bugs@missouri.edu, simpsonk@missouri.edu

Types: none. Collection: 150 vials: 100 vials identified to family; 50 vials in backlog. Collection labels are typed, handwritten, or photoreduced. Collection is not cataloged. Holdings mainly from the Nearctic.

Montana

The Museum Collections of Glacier National Park (West Glacier, MT 59936 [GLNP]; curatorial staff: Deirdre Shaw) does not house a millipede collection.

Department of Entomology, Montana State University, Bozeman, MT 59717 (MTEC)

Curatorial Staff: Dr. Michael A. Ivie
Phone: 1-406-994-4610
Fax: 1-406-994-6029
E-mail: mivie@montana.edu

Types: none. Collection: 100 lots (est.): 50 identified at least to family level; 50 lots (est.) in backlog. Specimens are stored in 70% ethanol; collection labels are mostly handwritten, and some are printed with a laser printer. Collection is arranged geographically. Collection is not cataloged. Holdings mainly from the West Indies; some specimens from the Nearctic, the Palearctic, southern Africa, Australia, and New Zealand. Associated collections: actively growing Berlese bulk sample collection.

Nebraska

The Collection of Arthropods (Hastings College, 7th and Turner Avenue, Hastings, NE 68901 [HCCA]; curatorial staff: Dr. Bill Beachly) does not house a millipede collection.

University of Nebraska State Museum, W436 Nebraska Hall, University of Nebraska, Lincoln, NE 68588-05143 (UNSM)

Curatorial Staff: Dr. Brett C. Ratcliffe
Phone: 1-402-472-2614
Fax: 1-402-472-8949
E-mail: bratcliffe1@unl.edu

Types: none. Collection: 31 lots (count). Speci-

mens are stored in 70% ethanol; collection labels are handwritten or printed. Collection is arranged alphabetically by family and genus. Collection is not cataloged. Material from the Nearctic, Central America, and the Neotropics. Collection growth: low.

New Hampshire

Insect Collection, Department of Zoology, University of New Hampshire, Durham, NH 03824 (DENH)

Curatorial Staff: Dr. Donald S. Chandler
Phone: 1-603-862-1735
Fax: 1-603-862-1713
E-mail: dsc1@christa.unh.edu

Types: none. Collection: 100 lots (count): partly identified to order level. Collection labels are handwritten or printed with a laser printer. Collection is not cataloged. All material is from the Nearctic. Associated collections: actively growing reprint collection and historical bulk sample collection. Collection growth: none.

New Jersey

The Princeton University Museum of Natural History (Guyot Hall, Princeton University, Princeton, NJ 08544 [MNHP]; curatorial staff: Elizabeth Horn) and Bureau of Natural History (New Jersey State Museum, New Jersey Department of State, CN-530 Trenton, NJ 08625-0530 [NJSM]; curatorial staff: Mr. David C. Parris) do not house millipede collections.

New Mexico

The New Mexico Museum of Natural History and Sciences in Albuquerque houses a fossil millipede collection.

Division of Arthropods, Department of Biology Museum of Southwestern Biology, MSC 03 2020 University of New Mexico, Albuquerque, NM 87131-1091 (UNMC)

Curatorial Staff: Dr. Sandra L. Brantley
Phone: 1-505-277-4225
Fax: 1-505-277-0304
E-mail: sbrantle@unm.edu

Millipede collection of specimens collected in pitfall traps in local desert. This collection has not been organized or cataloged. However, plans are under way to organize, catalog, and build this collection.

New York

New York State Museum, Cal Survey, 3132 Cultural Education Center, Albany, NY 12230 (NYSM)

Curatorial Staff: Dr. Timothy McCabe
E-mail: tmccabe@mail.nysed.gov

No millipede collection beyond small teaching collection. Assumed Chamberlin type specimen not found.

Insect Collection, Buffalo Museum of Science, 1020 Humboldt Parkway, Buffalo, NY 14211-1293 (BMSC)

Curatorial Staff: Marc C. Potzler
Phone: 1-716-896-5200 ext. 374
Fax: 1-716-897-6723
E-mail: mpotzler@sciencebuff.org

Collection consists of 19 pinned or pointed and air-dried specimens and nine vials. Specimens in vials are maintained in 80% ethanol; collection labels are printed with a laser printer or handwritten. Collection is not organized. Collection is not cataloged, though individual lot numbers have been assigned. Almost all pinned material from Venezuela; a few specimens from the United States. All alcohol material is from New York.

Insect Collection, Department of Entomology Cornell University, 2144 Comstock Hall, Ithaca, NY 14853-0901 (CUIC)

Curatorial Staff: Dr. James K. Liebherr/Rick Hoebeke
Phone: 1-607-255-4507
E-mail: JKL5@Cornell.edu

Collection: about 40 jars identified at least to family; unspecified backlog partly identified to order. Specimens are stored in 70% ethanol; collection labels are typed and handwritten. Collection is not cataloged. Holdings are from the Nearctic. It is a historical collection of Keeton and Hoffman. Collection growth: none.

Department of Entomology, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024 (AMNH)

Curatorial Staff: Dr. Lorenzo Prendini
Phone: 1-212-769-5843
Fax: 1-212-769-5277
E-mail: lorenzo@amnh.org

Types: 370 lots (est.; Causey; Chamberlin; Cham-

berlin & Wang; Enghoff & Golovatch; Hoffman; Keeton; Shear; Shear & Mesibov; Shear & Peck; Shelley; Silvestri; Wood). Types are separated from the formed collection; a card catalog of types is available. Collection: 5,320 lots (est.): 3,850 (est.) identified at least to family; 1,470 lots (est.) in backlog, partly identified to order. Specimens are stored in 75%–80% ethanol; collection labels are dot-matrix printed, typed, and handwritten. Collection is arranged systematically. Collection is not cataloged. Holdings worldwide in scope. Associated collections: reprint collection and historical microscope slide collection. The collection contains Verhoeff voucher material. Estimated collection growth: 50 lots per year. Note: The Department of Paleontology houses fossil millipede specimens; among these Devonian arthropleurid material (Wilson & Shear types).

Staten Island Institute of Arts and Sciences, 75 Stuyvesant Place, Staten Island, NY 10301 (SIIS)

Curatorial Staff: Edward Johnson
Phone: 1-718-727-1135 ext. 16

Small millipede collection (fewer than 50 specimens).

College of Environmental Science and Forestry Collection, State University of New York, Syracuse, NY 13210 (DFEC)

Curatorial Staff: Dr. Frank E. Kurczewski
Phone: 1-315-470-6753

Teaching collection only.

North Carolina

The Plant Protection Section (Plant Industry Division, North Carolina Department of Agriculture, P.O. Box 27647, Raleigh, NC 27611 [EDNC]; curatorial staff: Steven Schmidt) and Weymouth Woods Sandhills Nature Preserve (400 North Fort Bragg Road, Southern Pines, NC 28387 [WWSP]; curatorial staff: Scott Hartley) do not house millipede collections.

NCSU Insect Collection, Department of Entomology, Box 7613, North Carolina State University, Raleigh, NC 17695-7613 (NCSU)

Curatorial Staff: Dr. Lewis L. Deitz/Bob Blinn
Phone: 1-919-515-3595
Fax: 1-919-515-7746
E-mail: lewis_deitz@ncsu.edu, bob_blinn@ncsu.edu
Web site: *www.cals.ncsu.edu/entomology/Museum/HomePage*

Types: none. Collection: 26 lots (count). Specimens are stored in ethanol; collection labels are handwritten or laser printed. Collection is not cataloged. Material from eastern North America.

Research Lab, North Carolina State Museum of Natural Sciences, 4301 Reedy Creek Road, Raleigh, NC 27607 (NCSM)

Curatorial Staff: Dr. Rowland M. Shelley
Phone: 1-919-733-7450
Fax: 1-919-715-2294
E-mail: rowland.shelley@ncmail.net

Types: More than 50 lots (Shelley). Types are separated from the formed collection. No type catalog is available. Collection: 9,000 lots evaluated by Rowland M. Shelley: all identified to family level and beyond. Backlog: none. Collection labels are printed with a laser or dot-matrix printer, typed, or handwritten. Collection is arranged systematically. Collection is cataloged in catalog books and computerized. Individual lot numbers have been assigned. Associated collections: personal reprint collection. Holdings mainly from the Nearctic; some material from Central America, the Neotropics, and Southeast Asia.

North Dakota

N. D. State Insect Reference Collection Entomology Department, North Dakota State University, Fargo, ND 58102 (NDSU)

Curatorial Staff: Dr. Gerald Fauske
Phone: 1-701-231-9491
Fax: 1-701-231-8557
E-mail: Gerald.Fauske@ndsu.nodak.edu

Types: none. Collection: 1,420 lots (est.): 42 (count) identified at least to family; 1,380 lots (est.) in backlog, partly identified to order, though large amounts are unsorted. Specimens are stored in 80% ethanol; collection labels are handwritten and typed. Collection is arranged alphabetically by family and genus. Unidentified material is arranged by locality and date. Collection is not cataloged. Holdings are mainly from eastern North America (tallgrass prairies in western Minnesota). Associated collections: actively growing bulk sample collection from prairie inventory project. Estimated collection growth: 320 lots per year.

Ohio

The Ohio State University Insect Collection (1315 Kinnear Road, Columbus, OH 43212 [OSU]; curatorial staff: Dr. Norman Johnson) and Boonshoft Museum of Discovery (2600 DeWeese Parkway, Dayton, OH 45414 [DMNH]; curatorial staff: Donna Lewis; formerly Dayton Museum of Natural History) do not house millipede collections.

Cleveland Museum of Natural History, 1 Wade Oval Drive, University Circle, Cleveland, OH 44106 (CLEV)

Curatorial Staff: Dr. Joe Keiper
E-mail: jkeiper@cmnh.org

No organized collection. About 12 specimens, unidentified and locally collected. Collection growth: unlikely. Note: The museum houses some fossil millipede specimens and fossil type material; curator: Dr. J. T. Hannibal (e-mail: jhanniba@cmnh.org).

Ohio State University Acarology Laboratory, Museum of Biological Diversity, 1315 Kinnear Road, Columbus, OH 43212-1192 (OSAL)

Curatorial Staff: Dr. Hans Klompen
E-mail: klompen.1@osu.edu

No organized millipede collection. About 12 jars of mostly *Narceus annularis* and undetermined backlog.

Ohio Historical Society Insect Collection, 1982 Velma Avenue, Columbus, OH 43211 (OHSC)

Curatorial Staff: Mr. Robert C. Glotzhober
Phone: 1-614-297-2633
Fax: 1-614-297-2233
E-mail: bglotzhober@ohiohistory.org

Types: none. Small number of lots. Specimens are stored in ethanol; labels are handwritten. Collection is cataloged in catalog books. Material from eastern North America.

Oklahoma

The Oklahoma Museum of Natural History (University of Oklahoma, 2401 Chautauqua Avenue, Norman, OK 73069-7029 [OMNO]; curatorial staff: Dr. Laurie J. Vitt) and Chickasaw National Recreational Area (P.O. Box 201, Sulphur, OK 73086 [PNPC]; curatorial staff: Ms. Judy Reeder) do not house millipede collections.

K. C. Emerson Museum, Department of Entomology, Oklahoma State University, Stillwater, OK 74078 (OSEC)

Curatorial Staff: Mr. Don C. Arnold
Phone: 1-405-744-9397
Fax: 1-405-744-6039
E-mail: entodca@okstate.edu

Types: none. Collection: 129 lots (count): 70 identified at least to family level; 59 lots (count) in backlog. Collection labels are handwritten, dot-matrix printed, or typed. Collection is cataloged on file cards. Material is from eastern North America (nearly all from Oklahoma). Associated collections: historical reprint collection. Estimated collection growth: five lots per year.

Oregon

The following institutions do not house millipede collections: Museum Collections of Crater Lake National Park (P.O. Box 7, Crater Lake, OR 97604 [CLNP]; curatorial staff: Ms. Mary Benterou), Museum of Natural History (University of Oregon, Eugene, OR 97403 [UOIC]; curatorial staff: Dr. Don Dumond), and Entomology Museum (Oregon Department of Agriculture, 635 Capitol NE, Salem, Oregon 97310-0110 [ODAC]; curatorial staff: Mr. Richard L. Westcott).

Oregon State Arthropod Collection, Department of Entomology, 2046 Cordley Hall, Oregon State University, Corvallis, OR 97331 (OSAC)

Curatorial Staff: Dr. Darlene Judd
E-mail: juddd@mail.science.orst.edu

Small millipede collection.

Pennsylvania

The Arthropod Collection (Bureau of Plant Industry, Pennsylvania Department of Agriculture, 2301 North Cameron Street, Harrisburg, PA 17110 [PADA]; curatorial staff: Jim Stimmel) does not house a millipede collection.

Department of Entomology, Academy of Natural Sciences, 1900 Benjamin Franklin Parkway, Philadelphia, PA 19103-1195 (ANSP)

Curatorial Staff: Jason D. Weintraub
Phone: 1-215-299-1189
Fax: 1-215-299-1182
E-mail: weintraub@acnatsci.org

Types: 118 lots (Bollman; Causey; Chamberlin;

Cook; Cope; Gerstäcker; Hoffman; Wood). Types are not separated from the formed collection. A type catalog is forthcoming (2004–2005). Collection: unspecified number of lots. Collection labels are printed with a dot-matrix printer, typed, or handwritten. The collection is not organized and not cataloged. No individual lot numbers have been assigned. Holdings from the Nearctic and Middle America. Estimated collection growth: 200 lots per year.

Carnegie Museum of Natural History, 4400 Forbes Avenue, Pittsburg, PA 15213 (CMNH)

Curatorial Staff: Robert L. Davidson
Phone: 1-412-688-3259
Fax: 1-412-688-8670
E-mail: davidsonr@carnegiemuseums.org

Types: none. Collection: 3,000 lots: 500 lots identified to family; 2,500 lots in backlog. Specimens are stored in ethanol; collection labels are printed with a laser printer, typed, or handwritten. The formed collection is not organized and not cataloged. No individual lot numbers have been assigned. Associated collections: historical reprint collection and actively growing bulk sample collection. Extensive holdings from eastern North America and the West Indies; some holdings from the Neotropics and western Africa. Estimated collection growth: 100 lots per year. Note: The Section of Invertebrate Paleontology houses fossil millipede specimens.

Frost Entomological Museum, Department of Entomology, Pennsylvania State University, University Park, PA 16802 (PSUC)

Curatorial Staff: Dr. K. C. Kim
Phone: 1-814-863-2863
Fax: 1-814-865-3048
E-mail: kck@psu.edu

Types: none. Collection: about six lots. Collection is arranged alphabetically by family, genus, and species. Collection labels are laser printed. Collection is computerized (lot or specimen based). Material from eastern North America.

Rhode Island

The Department of Biological Sciences Collection (University of Rhode Island, Kingston, RI 02881 [URIC]; curatorial staff: Dr. Kerwin E. Hyland) does not house a millipede collection.

South Carolina

Department of Entomology Collection, Clemson University, Clemson, SC 29631 (CUCC)

Curatorial Staff: Dr. John C. Morse/Will K. Reeves
Phone: 1-864-656-5070
Fax: 1-864-656-5069
E-mail: wreeves@clemson.edu

Types: none. Collection consists of 50 lots: all identified to family level; four lots in backlog, identified to order. Specimens are stored primarily in ethanol; collection labels are handwritten, printed with a laser printer, and typed. Collection is cataloged on file cards and computerized (taxon-based flat file). Associated collections: actively growing reprint collection. Material is from western North America (South Carolina) and the West Indies (Dominica). Estimated collection growth: zero to two lots per year.

South Dakota

The Severin-McDaniel Insect Collection (Plant Science Department, South Dakota State University, Brookings, SD 57007 [SDSU]; curatorial staff: Dr. Paul J. Johnson) does not house a millipede collection.

Tennessee

The Adventure Science Center (800 Fort Negley Boulevard, Nashville, TN 37203 [CMSC]; curatorial staff: Herschell Parker; formerly the Cumberland Museum and Science Center) does not house a millipede collection.

Museum Collection of Great Smoky Mountains National Park, Gatlinburg, TN 37738 (GSMNP)

Curatorial Staff: Andriean Mayor
E-mail: mayor@nps.gov,
grsm_smokies_information@nps.gov

Currently, all millipede material from GSMNP is on loan to Richard L. Hoffman (VMNH).

Texas

The Houston Museum of Natural Science (One Herman Circle Drive, Houston, TX 77030 [HMNS]; curatorial staff: Nancy Greig) does not house a millipede collection.

Soil Arthropod Collection, Texas Memorial Museum, 2400 Trinity Street, Austin, TX 78705 (TMMC)

Curatorial Staff: Dr. Chris Durden/James Reddell
Phone: 1-512-471-4823
Fax: 1-512-471-9775
E-mail: drdn@mail.utexas.edu

Types: two lots (author unknown). Types are separated from the formed collection. Collection: 260 lots (est.): about 20 lots identified to family; 260 lots (est.) in backlog, partly identified to order. Specimens are stored in ethanol; collection labels are handwritten, typed, or printed with a dot-matix printer. Collection is organized by geography, DSL (day/site/list) number, and family. Collection is cataloged in catalog books and is computerized (lot- or specimen-based flat file). Individual lot numbers have been assigned. Associated collections: historical reprint, microscope slides, photograph, print, slide, and bulk sample collections. Estimated collection growth: three lots per year.

Department of Entomology Insects Collection, Texas A&M University, College Station, TX 77843-2475 (TAMU)

Curatorial Staff: Dr. John D. Oswald/Edward G. Riley
Phone: 1-979-845-9711
Fax: 1-979-845-6305
E-mail: j-oswald@tamu.edu, egrchryso@tamu.edu

Collection: 46 vials: none identified to order. Specimens are maintained in 80% ethanol. Very few specimens older than 15 years. Twenty-nine vials from the Nearactic (almost all from Texas); 15 vials from the Neotropics (mostly Mexico and Panama).

Museum of Texas Tech University, Division of Invertebrates, Natural Science Research Laboratory, Texas Tech University, Fourth and Indiana, Lubbock, TX 79409-3191 (TTCC)

Curatorial Staff: Dr. Marilyn Houck
Phone: 1-806-742-4814
Fax: 1-806-742-0362
E-mail: marilyn.houck@ttu.edu

Collection: fewer than 100 lots (est.). Specimens are stored in 70%–80% ethanol; collection labels are printed with a dot-matrix printer and handwritten. Collection is not cataloged.

All of the millipedes in the TTCC collection were transferred to the Texas Memorial Museum in 1989. Any specimens referred to in the literature as being from here prior to that date are now at TMMC. Museum anticipates increasing holdings in all arthropod groups.

Department of Biology, Stephen F. Austin State University, Nacogdoches, TX 75962 (SFAC)

Curatorial Staff: Dr. Don Hay
E-mail: dhay@sfasu.edu

Millipede collection was apparently misplaced after renovation.

Department of Biology, Midwestern State University, 3410 Taft, Wichita Falls, TX 76301 (MSSC)

Curatorial Staff: Dr. Norman Horner
E-mail: norman.horner@mwsu.edu

Types: none. Collection: 42 lots (mostly identified by Shelley [NCSM]): 35 lots identified to family; seven lots in backlog.

Utah

Entomology Section, Monte L. Bean Life Science Museum, Brigham Young University, Provo, UT 84602 (BYU)

Curatorial Staff: Dr. Richard W. Baumann
Phone: 1-801-378-5492
E-mail: richard-baumann@byn.edu

Types: none. Collection: 220 lots (est.): 180 lots (count) identified at least to family level; 40 lots (est.) in backlog. Specimens are stored in 75% ethanol; collection labels are handwritten or offset printed. Collection is arranged alphabetically by order and family. Collection is computerized (taxon-based flat file), and an online catalog is forthcoming. Most material from the Nearctic; some from Central America and Asia. Associated collections: historical reprint collection (library of R. V. Chamberlin). Estimated collection growth: 50 lots per year.

Dixie College, St. George, UT 84770 (AHBC)

Curatorial Staff: Dr. Andrew H. Barnum
Phone: 1-435-652-7771

Types: none. Fewer than 25 lots: all identified by R. M. Shelley [NCSM] to family level. Specimens are stored in ethanol; collection labels are handwritten or laser printed. Collection is computerized. Material from western North America. Collection growth: insignificant.

Vermont

University of Vermont Invertebrate Collection, Department of Zoology Collection, University of Vermont, Burlington, VT 05405-0086 (UVCC)

Curatorial Staff: Dr. Ross T. Bell
Phone: 1-802-656-4349

Types: none. Collection: 100 to 150 lots (est.): 50 identified at least to family; backlog is partly identified to order. Specimens are stored in 70%–80% ethanol, some with glycerol; collection labels are handwritten, laser printed, and typed. Collection is not cataloged. Material mainly from the Nearctic and Central America; a few specimens from Australia. Estimated collection growth: 20 lots per year (from student fieldwork).

Virgina

The Virginia Museum of Natural History at Virginia Tech (428 North Main Street, Blacksburg, VA 24061-0542 [VPIC]; curatorial staff: Llyn Sharp) does not house a millipede collection.

Virginia Museum of Natural History, 1001 Douglas Avenue, Martinsville, VA 24112 (VMNH)

Curatorial Staff: Dr. Richard L. Hoffman
Phone: 1-276-666-8629
E-mail: rhoffman@vmnh.org

Types: 500 to 600 lots (est.; Attems; Blower & Rundle; Buckett & Gardner; Carl; Causey; Chamberlin; Cook; Cook & Loomis; Enghoff; Golovatch; Hoffman; Hoffman & Burkhalter; Hoffman & Flores; Hoffman & Howell; Hoffman & Knight; Hoffman & Lohmander; Hoffman & Mahsberg; Hoffman & Orcutt; Johns; Keeton; Krabbe & Enghoff; Loomis; Loomis & Davenport; Loomis & Hoffman; Shear; Shear, Tsurusaki & Tanabe; Shelley; Shelley & Bauer; Shelley & Crawford; Williams & Hefner). Types are not separated from the formed collection, and a type catalog is being compiled. Collection: 20,000 to 30,000 lots (est.): approximately 20,000 identified at least to family; fewer than 5,000 to 10,000 lots (est.) in backlog, partly identified to order. Specimens are stored in 60%–70% isopropanol; collection labels are typed. Collection is arranged systematically (Hoffman, 1980, updated). The collection is cataloged on file cards (up to about 1970 only). Extensive holdings are from eastern North America, the Neotropics (Brazil and Colombia), and eastern Africa (Tanzania). Some specimens from western North America, Central America, Asia, Oriental regions, western Africa, southern Africa, Australia, New Zealand, and the Pacific Islands. Recently, extensive material from the Smoky Mountains, collected through the ongoing All Taxon Biological Inventory (ATBI; see GSMNP) was deposited at VMNH. Associated collections: actively growing reprint and photograph, print, and slide collections.

Washington

James Entomological Collection, Department of Entomology Collection, Washington State University, Pullman, WA 99164-6382 (WSU)

Curatorial Staff: Dr. Richard S. Zack
Phone: 1-509-335-3394
Fax: 1-509-335-1009
E-mail: zack@mail.wsu.edu

Types: some paratypes (Shelley; Shelley & Bauer). Collection: 1,200 lots (est.): 1,000 (est.) identified at least to family; 200 lots (est.) in backlog, identified to order. Specimens are stored in 70% ethanol; collection labels are mostly offset printed, and some are handwritten. In the future, collection labels will be printed with a laser printer. Collection is arranged systematically by order. Collection is not cataloged. Most material from western North America; some specimens from the Neotropics and Southeast Asia. Associated collections: both actively growing and historical reprint collection, microscope slide collection, and photograph, print, and slide collection. Estimated collection growth: 25 lots per year.

Burke Museum, University of Washington, Box 353010, Seattle, WA 98195-3010 (UWBM)

Curatorial Staff: Rod Crawford
Phone: 1-206-543-9853
Fax: 1-206-685-3039
E-mail: tiso@u.washington.edu

Types: three lots (Kincaid; Shelley). Types are not separated from the formed collection. Collection: 2,500 lots (est.): about 1,500 identified to family; 1,000 in backlog identified to order. Specimens are stored in 70% ethanol; collection labels are printed with a dot-matrix printer, typed, or handwritten. Collection is arranged systematically and geographically. Holdings mainly from western North America; some material from eastern North America. Estimated collection growth: 75 lots per year.

West Virginia

West Virginia University, Agricultural Sciences Building, Evansdale Drive, Plant and Soil Sciences, Morgantown, WV 26506 (WVUC)

Curatorial Staff: Dr. John Strazanac
Phone: 1-304-293-6023
Fax: 1-304-293-2960
E-mail: jstrazan@wvu.edu

Types: none. Collection: 3,500 lots (est.): except for 20 vials, all unidentified. Collection labels are printed with a dot-matrix printer. Collection is arranged in geographic and chronological order. Collection is not cataloged. All material from eastern North America (West Virginia and Virginia). Associated collections: historical and actively growing bulk sample collection.

Plant Industries Division, West Virginia Department of Agriculture, Charleston, WV 25305 (PPCD)

Curatorial Staff: Dr. Charles C. Coffman/Dr. Shawn Clark

Types: none. Collection: 10 lots: none identified.

Wisconsin

Insect Research Collection, Department of Entomology, 346 Russell Labs, 1630 Linden Drive, University of Wisconsin, Madison, WI 53706-1598 (IRCW)

Curatorial Staff: Steven J. Krauth
Phone: 1-608-262-0056
Fax: 1-608-262-3322
E-mail: krauth@entomology.wisc.edu

Types: none. Collection: 106 lots (count): 14 lots identified at least to family level; 92 lots identified to order in backlog. Collection labels are typed. Collection is arranged alphabetically by family. Collection is not cataloged. No individual lot numbers have been assigned. Holdings mainly from eastern North America. Associated collections: historical reprint collection. Bulk pitfall samples from a multiple-year survey of Wisconsin prairies include unsorted millipedes. Estimated collection growth: two lots per year.

Insect Collection, Milwaukee Public Museum, 800 West Wells Street, Milwaukee, WI 53233 (MCPM)

Curatorial Staff: Dr. Allen M. Young/Joan Jass
Phone: 1-414-278-2761
Fax: 1-414-278-6100
E-mail: jass@mpm.edu

Types: none. Collection: 199 lots (count): all identified at least to family level; an unknown number of lots in backlog. Collection is arranged alphabetically by family. Specimens stored in ethanol, and some old specimens are pinned; collection labels are handwritten, typed, and printed with a dot-matrix printer. Collection is cataloged in accession records and computerized (taxon-based relational database). Data captured are order, family, identification, determiner, locality, and size of lot. Holdings mainly from the Nearctic, Central America, and the Neotropics. Associated collections: actively growing reprint collection. Estimated collection growth: 10 lots per year.

Wyoming

Rocky Mountain Systematic Entomology Laboratory, Department of Plant, Soil, and Insect Sciences, Box 3354, University of Wyoming Laramie, WY 82071 (ESUW)

Curatorial Staff: Dr. Scott R. Shaw
E-mail: braconid@uwyo.edu

No formal millipede collection; teaching collection only.

Guam

Agricultural Experiment Station, University of Guam, Mangilao, Guam 96913 (ESUG)

Curatorial Staff: Dr. Ross Miller
E-mail: rmiller@uog9.uog.edu

No millipede collection other than small teaching collection.

URUGUAY

No contact was established with Instituto de Biología, Facultad de Tristán Narvaja 1674 (C.C. 10.773 Montevideo). The Museos Nacionales de Historia Natural y Antropología (Casilla de Correo 399, 11000 Montevideo [URMU]; curatorial staff: Dr. Alvaro Mones) does not house a millipede collection.

Facultad de Ciencias, Iguá 4225, Montevideo 11400 (FCE)

Curatorial Staff: Alba Bentos/Miguel Simó

Phone: 598-2-525-8618
Fax: 598-2-525-8617
E-mail: bentos@fcien.edu.uy, simo@fcien.edu.uy

Types: none. Collection: 52 lots: backlog is partly identified to order. Collection labels are handwritten. Most of collection is identified as either Juliformia or Polydesmoidea and arranged systematically. Collection is not cataloged. Holdings from the Neotropics (Uruguay, Argentina, Brazil).

VENEZUELA

Dr. Manuel González Sponga in Caracas maintains a personal millipede collection. No further information is available.

ZIMBABWE

Invertebrate Collection, National Museum, P.O. Box 240, Centenary Park, Bulawayo (NMBZ)

Curatorial Staff: Mrs. M. J. Fitzpatrick/F. Nyathi
Phone: 263-9-60045/6
Fax: 263-9-64019
E-mail: fitzpatrick@gatorzw.com

Type: one lot (Hoffman). Collection: 856 lots (count): all identified at least to family; 20 lots (est.) in backlog. Specimens are stored in 70% ethanol; collection labels are handwritten. Collection is arranged alphabetically by family. Collection is cataloged in file cards and catalog books. Individual lot numbers have been assigned. Entire collection is from southern Africa. Associated collections: actively growing reprint collection. Estimated collection growth: 10 lots per year.

Literature Cited

Including all published millipede type catalogs

Am Stein, J. G. 1857. Aufzählung und Beschreibung der Myriapoden und Crustaceen Graubündens. Jahresbericht der Naturforschenden Gesellschaft Graubündens, Neue Folge **2**: 112–148.

Arnett, R. H., G. A. Samuelson, and G. M. Nishidia. 1993. The Insect and Spider Collections of the World. Flora & Fauna Handbook No. 11. Sandhill Crane Press, Gainesville, Florida.

Bigler, W. 1929. Die Diplopodenfauna des Schweizerischen Nationalparks. Ergebnisse der wissenschaftlichen Untersuchung des Schweizerischen Nationalparks, **5**: 1–87.

Bueno-Villegas, J., P. Sierwald, and J. E. Bond. 2004. Diplopoda. *In* Bousquets, Jorge Lloreute and J. J. Morrone, eds. Biodiversidad, taxonomía y biogeografia de Artrópodos de México, Vol. IV. Universidad Nacional Autonoma de México, p. 569–599.

Dethier, M. 1998. La collection Delhez. 1. Catalogue provisoire. Bulletin des Chercheurs de la Wallonie, **38**: 33–76. [non vidi]

Geoffroy, J. J., J.-P. Mauriès, M. Nguyen Duy-Jacquemin, and J.-M. Demange, eds. 2002. Annuaire mondial des Myriapodologistes. Bulletin du Centre International de Myriapodologie, 35. C. I. M. Paris.

Hoffman, R. L. 1980. Classification of the Diplopoda. Muséum d'Histoire Naturelle, Genève.

International Society of Arachnology. 2001. Annuaire des Arachnologistes Mondiaux. Museum für Naturkunde, Humboldt Universität zu Berlin.

Jeekel, C. A. W. 1971. Nomenclator Generum et familiarum Diplopodorum: A list of the genus and family-group names in the class Diplopoda from the 10th edition of Linnaeus, 1758 to the end of 1957. Monografieen van der Nederlandse Entomologische Vereniging, **5**.

Johns, P. M. 2000. Canterbury Museum invertebrate types other than arachnid, insect and molluscan. Records of Canterbury Museum, **16**: 83–93.

Korsós, Z. 1983. Diplopod types in the Hungarian Natural History Museum, I. Annales Historico-Naturales Musei Nationalis Hungarici, **75**: 117–120.

Kraus, O. 1974. Minutes of the Plenary Session of Congress; 2nd International Congress of Myriapodology. *In* Blower, J. G., ed., Myriapoda. Symposia of the Zoological Society of London, Vol. 32, Academic Press.

Leonardi M., A. Quaroni, F. Rigato, and S. Scali. 1995. Le collezioni del Museo Civico di Storia Naturale di Milano. Atti della Societa Italiano di Scienze e del Museo Civico di Storia Naturale di Milano **135**(1): 3–296.

Lim, Kil-Young. 2001. Taxonomy of Millipedes (Arthropoda: Diplopoda) in Korea. Ph.D. thesis, Chonbuk National University, Republic of Korea.

Manfredi, P. 1976. Catalogo dei tipi del Museo civico di Storia Naturale di Milano. IV. I tipi dei Miriapodi (Diplopoda e Chilopoda). Atti della Societa Italiano di Scienze e del Museo Civico di Storia Naturale di Milano, **117**: 214–238.

Moritz, M., and S.-C Fischer. 1973. Die Typen der Myriapoden-Sammlung des Zoologischen Museums Berlin. I. Diplopoda. Teil 1: Polyxenida, Glomerida, Sphaerotheriida, Glomeridesmida, Polyzonida, Craspedosomatida (Striariidae, Trachysomatidae, Chamaesomatidae, Orobainosomatidae, Mastigophorophyllidae, Neoatractosomatidae, Verhoeffiidae, Heterolatzeliidae, Conotylidae, Diplomaragnidae). Mitteilungen aus dem Zoologischen Museum in Berlin, **49**: 323–375.

———. 1974. Die Typen der Myriapoden-Sammlung des Zoologischen Museums Berlin. I. Diplopoda. Teil 2: Craspedosomatida (Chordeumatidae, Anthroleuco-

somatidae, Anthogonidae, Entomobielziidae, Rothenbühleriidae, Brachychaeteumatidae, Haplobainosomatidae, Attemsiidae, Craspedosomatidae, Callipodidae, Lysiopetalidae), Stemmiulida, Spirostreptida. Mitteilungen aus dem Zoologischen Museum in Berlin, **50**: 351–385.

———. 1975. Die Typen der Myriapoden-Sammlung des Zoologischen Museums Berlin. I. Diplopoda. Teil 3: Julida, Spirobolida. Mitteilungen aus dem Zoologischen Museum in Berlin, **51**: 199–255.

———. 1978a. Die Typen der Myriapoden-Sammlung des Zoologischen Museums Berlin. I. Diplopoda. Teil 4: Polydesmida (Paradoxosomatidea, Sphaeriodesmidea, Polydesmidea). Teil 5: Ergänzugen (Teile 1 bis 3). Mitteilungen aus dem Zoologischen Museum in Berlin, **54**: 99–160.

———. 1978b. Die Typen der Myriapoden-Sammlung des Zoologischen Museums Berlin. I. Diplopoda. Teil 6: Nachtrag zu den Teilen 1 bis 4. Mitteilungen aus dem Zoologischen Museum in Berlin, **54**: 333–343.

———. 1979. Die Typen der Myriapoden-Sammlung des Zoologischen Museums Berlin. II. Chilopoda. Mitteilungen aus dem Zoologischen Museum in Berlin, **55**: 297–352.

Pedroli-Christen, A. 1993. Faunistik der Tausendfüssler der Schweiz (Diplopoda). Documenta Faunistica Helvetiae, **14,** Centre Suisse de Cartographie de la Faune.

Rack, G. 1973. Die Entomologischen Sammlungen des Zoologischen Instituts und Zoologischen Museum der Universität. III. Teil (Nachtrag). Mitteilungen aus dem Hamburgischen Zoologischen Institut, **70**: 105–118.

Samuelson, A., and N. Evenhuis. 2003. Insect and Spider Collections of the World Website, *http://hbs.bishopmuseum.org/codens/codens-r-us.html.*

Saunier, F. 1980. Catalogue des Collections Arachnologiques Mondiales. Centre International de Documentation Arachnologique (C. I. D. A., now International Society for Arachnology), 61, rue de Buffon, 75005 Paris.

Shelley, R. M. 2003. A revised, annotated, family-level classification of the Diplopoda. Arthropoda Selecta, **11**(3): 187–207.

Shelley, R. M., P. Sierwald, S. B. Kiser, and S. I. Golovatch. 2000. Nomenclator Generum et familiarum Diplopodorum II. Pensoft, Sofia, Moscow.

Sierwald, P., ed. 2001. Nomenclator Generum Diplopodorum. A complete listing of all genus-group names in the class Diplopoda from 1758 through 1999. By Jeekel, C. A. W., R. L. Hoffman, R. M. Shelley, P. Sierwald, S. B. Kiser, and S. I. Golovatch, *http://www.fmnh.org/research_collections/zoology/zoo_sites/millipeet/nomenclator.html.*

Sierwald, P., G. Gurda, and J. E. Bond. In prep. Types of the class Diplopoda at the Field Museum. Fieldiana.

Stagl, V. 2003. Zur Geschichte der Myriapoden-Forschung in Österreich und der Myriapoden-Sammlung des Naturhsistorischen Museums in Wien. Denisia, **8**: 165–178.

Stoev, P., and P. Beron. 2001. On the type specimens of Myriapoda (Chilopoda, Diplopoda) in the collection of the National Museum of Natural History in Sofia. Arthropoda Selecta, **9**(2): 91–102.

Systematics Agenda 2000. 1994. Systematics Agenda 2000: Exploring the Biosphere. Technical Report. American Society of Plant Taxonomists, Society of Systematic Biologists, and Willi Hennig Society, New York.

Viggiani, G. 1973. Le specie descritte da Filippo Silvestri (1873–1949). Bollettino del Laboratorio di Entomologia "Filippo Silvestri," Portici, **30**(1972–1973): 351–418.

Wallin, L. 1991. Catalog of type specimens. 2. General Zoology. Uppsala University. 80 pp. [non vidi]

Weidner, H. 1960. Die entomologischen Sammlungen des Zoologischen Staatsinstituts und Zoologischen Museums Hamburg. III. Teil, Chilopoda und Progoneata. Mitteilungen aus dem Hamburgischen Zoologischen Museum und Institut, **58**: 57–104.

Wirkner, C. S., V. Stagl, and N. Turk. 2002. Type specimens of the Chordeumatida in the Natural History Museum Vienna. Kataloge der wissenschaftlichen Sammlungen des Naturhistorischen Museums in Wien, **16,** Myriapoda (1): 1–31.

Zentralregister Biologischer Forschungssammlungen in Deutschland, *http://ice.zadi.de/zefod/index.html.*

Appendix 1—Questionnaire

MILLIPEDE COLLECTION SURVEY—
Field Museum of Natural History

Name
Institution
Street address

City
Postal Code
State
Country
Phone (Country code–area code–number)
Fax (Country code–area code–number)
E-mail
Name of respondent
Name of curator/collection manager in charge of millipede collection

Size of collection, estimated/known number of lots including backlog **(= not identified to family level)**

Total number of lots (= specimens series): Evaluation by:
Number of lots in formed collection
(at least identified to family level):
Evaluation by:
Number of lots in backlog: Evaluation by:
Backlog identified to order level? ☐ **Yes** or ☐ **No** or ☐ **Partly** (check one)

Specimen storage

Preservation fluid used:
Check all that apply.
☐ Specimens stored in vials with cotton stoppers, vials stored in jars
☐ Specimens stored in vials with neoprene stoppers, vials stored in jars
☐ Specimens stored in vials with neoprene stoppers, vials stored in racks
☐ Other:

Collection labels

Check all that apply.
☐ Printed with laser printer
☐ Printed with dot-matrix printer and alcohol-proof ribbon
(give brand name, source of ribbon)
☐ Typewriter, alcohol-proof ribbon
☐ Handwritten labels
Comments

Collection organization of formed collection

(e.g., alphabetical order of families, systematic arrangement, geographic, other)

Collection catalog

Are the collection holdings cataloged? ☐ **Yes** ☐ **No** (check one)

☐ All lots of the formed collection cataloged

☐ Formed collection partly cataloged

Catalog type (check all that apply)

☐ **File cards** ☐ **Catalog books** ☐ **Accession Records** ☐ **Computerized**

Have individual lot numbers been assigned? ☐ **Yes** ☐ **No**

If computerized, please give some detail of the catalog.

Data model used:

Database type used:

Comments (types of data captured, bar coding):

Are you interested in sharing information regarding collection computerization?

☐ **Yes** ☐ **No** (check one)

Type material

Number of type lots:

Are the types separated from the collection? ☐ **Yes** ☐ **No** (check one)

Type catalog available? ☐ **Yes** ☐ **No** (check one)

If published, please give reference:

Associated collections (check all that apply)

Reprint collection:	☐ historical	☐ actively growing	☐ catalog	☐ electronic catalog
Microscope slides:	☐ historical	☐ actively growing	☐ catalog	☐ electronic catalog
Photographs, prints, slides:	☐ historical	☐ actively growing	☐ catalog	☐ electronic catalog
Bulk samples:	☐ historical	☐ actively growing	☐ catalog	☐ electronic catalog

Other collections (e.g., particular habitats, collecting methods, expeditions, historical collections)

Collection growth

Average number of lots added annually

During the last five years

Through professional expeditions or fieldwork

Through purchase

From miscellaneous sources, gifts, etc.

If possible, please provide an estimate of amount of material for each geographic region represented your collection.

Realm	Region	Extensive material	Some material
Nearctic		☐	☐
	Western North America	☐	☐
	Eastern North America	☐	☐
Middle America	Central America	☐	☐
	West Indies	☐	☐
Neotropic		☐	☐
Palearctic		☐	☐
	Europe (western Palearctic)	☐	☐
	Mediterranean/northern Africa	☐	☐
	Asia (eastern Palearctic)	☐	☐
Oriental		☐	☐
	India	☐	☐
	Southeast Asia	☐	☐
Ethiopian		☐	☐
	Western Africa	☐	☐
	Eastern Africa	☐	☐
	Southern Africa	☐	☐
Australia		☐	☐
New Zealand		☐	☐
Pacific Islands		☐	☐

A list of types and authors would be most helpful for future researchers. Please make check marks following all author names for which your museum houses type specimens.

Author	Types
Abrous-Kherbouche & Mauriès	☐
Absolon & Lang	☐
Am Stein	☐
Attems	☐
Beauvois	☐
Berlese	☐
Bigler	☐
Blickett & Gardner	☐
Blower	☐
Blower & Rolfe	☐
Blower & Rundle	☐
Bollman	☐
Borre	☐
Bosc	☐
Bouvier	☐
Brade-Birks	☐
Brandt	☐
Brolemann	☐
Brolemann & Brade-Birks	☐
Brolemann & Verhoeff	☐
Butler	☐
Carl	☐
Causey	☐
Ceuca	☐
Chamberlin	☐
Chamberlin & Hoffman	☐
Chamberlin & Mulaik	☐
Chamberlin & Wang	☐
Condé	☐
Condé & Demange	☐
Condé & Nguyen Duy-Jacquemin	☐
Condé & Terver	☐
Cook	☐
Cook & Collins	☐

Author	Types
Cook & Loomis	☐
Cope	☐
Curtis	☐
Daday	☐
Dalla Torre	☐
Demange	☐
Demange & Mauriès	☐
Desjardins	☐
Drury	☐
Eichwald	☐
Enghoff	☐
Enghoff & Golovatch	☐
Erichson	☐
Eschscholtz	☐
Fabricius	☐
Faës	☐
Fanzago	☐
Fedrizzi	☐
Gardner	☐
Gardner & Shelley	☐
Gerstäcker	☐
Gerstfeldt	☐
Gervais	☐
Gervais & Goudot	☐
Girard	☐
Glaubrecht & Spelda	☐
Golovatch	☐
Golovatch & Enghoff	☐
Golovatch & Korsòs	☐
Golovatch & Mikhaljova	☐
Gray	☐
Gressitt	☐
Haga	☐
Harger	☐

Heller	☐
Hoffman	☐
Hoffman & Burkhalter	☐
Hoffman & Flores	☐
Hoffman & Howell	☐
Hoffman & Knight	☐
Hoffman & Lohmander	☐
Hoffman & Mahsberg	☐
Hoffman & Orcutt	☐
Humbert	☐
Humbert & Saussure	☐
Humphreys & Shear	☐
Ishii	☐
Ishii & Choi	☐
Jacot	☐
Jawlowski	☐
Jedryczkowski	☐
Jeekel	☐
Johns	☐
Johnson	☐
Karsch	☐
Keeton	☐
Kenyon	☐
Kincaid	☐
Koch, C. L.	☐
Koch, L.	☐
Korsòs	☐
Korsòs & Golovatch	☐
Korsòs & Read	☐
Krabbe	☐
Krabbe & Enghoff	☐
Kraus	☐
Lang	☐
Latreille	☐
Latzel	☐
Lawrence	☐
Leach	☐
LeGuillou	☐
Lignau	☐
Linnaeus	☐
Lohmander	☐
Loksa	☐
Lokshina & Golovatch	☐
Loomis	☐
Loomis & Davenport	☐
Loomis & Hoffman	☐
Lucas	☐
Manfredi	☐
Marquet & Condé	☐
Mauriès	☐
Mauriès & Barraqueta	☐
Mauriès & Enghoff	☐
Mauriès & Gonzalez	☐
Mauriès & Heymer	☐
Mauriès & Karamaouna	☐
Mauriès & Maurin	☐
Mauriès & Silva	☐
Mauriès & Vincente	☐
McNeill	☐
Meinert	☐
Menge	☐
Mikhaljova	☐
Mikhaljova & Kim	☐
Minelli	☐
Miyosi	☐
Mrsic	☐
Murakami	☐
Murakami & Irie	☐
Murakami & Kawasawa	☐
Murakami & Paik	☐
Murray	☐
Nemec	☐
Newport	☐
Nguyen Duy-Jacqemin	☐

Nguyen Duy-Jacquemin & Condé	☐
Olivier	☐
Packard	☐
Packard & Ryder	☐
Pedroli-Christen	☐
Perty	☐
Peters	☐
Pierce	☐
Pierrard	☐
Pocock	☐
Porat	☐
Rafinesque	☐
Read	☐
Ribaut	☐
Risso	☐
Rosicky	☐
Rothenbühler	☐
Ryder	☐
Sager	☐
Saussure	☐
Saussure & Humbert	☐
Saussure & Zehntner	☐
Say	☐
Schiotz	☐
Schubart	☐
Shear	☐
Shear & Mesibov	☐
Shear & Peck	☐
Shear & Tanabe	☐
Shear & Tsurusaki	☐
Shear, Tsurusaki, & Tanabe	☐
Shelley	☐
Shelley & Bauer	☐
Shelley & Crawford	☐
Shinohara	☐
Silvestri	☐
Sinclair	☐
Spelda	☐
Strasser	☐
Stuxberg	☐
Tabacaru	☐
Tabacaru & Negrea	☐
Takakuwa	☐
Takakuwa & Miyosi	☐
Takashima & Haga	☐
Tanabe	☐
Tanabe, Ishii, & Yin	☐
Tanabe & Shinohara	☐
Thaler	☐
Tömösváry	☐
Turk	☐
Vachon	☐
Vélez	☐
Verhoeff	☐
Victor	☐
Villers	☐
Vincente & Mauriès	☐
Voges	☐
Waga	☐
Wang, D.	☐
Wang, Y. M.	☐
Wang, Y. M., & Tang, M. C.	☐
Williams & Hefner	☐
Wood	☐
Zhang	☐
Zhang & Li	☐

UNIVERSITY OF ILLINOIS-URBANA
3 0112 073957729

Field Museum of Natural History
1400 South Lake Shore Drive
Chicago, Illinois 60605-2496
Telephone: (312) 665-7055